THE BANKERS' MAGAZINE,

AND

Journal of the Money Market.

DECEMBER, 1852.

THE PROPOSED GUARANTEE FUND OF THE BANKING INSTITUTE.

It is some time since we referred to this subject, because we have been in expectation of laying before our readers a full and complete statement of the manner in which the proposed fund would be carried out. Considerable delay from various causes have prevented the council of the Institute making so much progress as they expected in the matter, and now they feel themselves compelled again to address a circular to all the bank offices throughout the kingdom, soliciting their active assistance, in order to bring the project to a successful termination.

That a Guarantee and Annuity Fund, founded on the same principles as those which have proved eminently successful in the Bank of England, and the Bank of Ireland, but modified so as to meet the requirements of the different classes of subscribers to the guarantee fund, may be successfully established, does not admit of doubt. The statements made by the Governor of the Bank of England, at the meeting when the subject was brought forward by Mr. Newmarch, showed clearly that the only things necessary to secure success, were the co-operation of bank officers and good management; the former will be secured gradually. Many will hesitate to give their support until they see the plan is likely to succeed; but directly the plan is consolidated and brought forward in a proper manner, it will receive the earnest support of the banking interest of the kingdom.

Everything, however, will depend on the preliminary arrangements and management. The council of the Institute have exerted themselves very earnestly, in order that the assistance of a wealthy and respectable assurance company may be obtained; and it is with the view of having the means of showing the interest which is felt in the matter by bank officers that they

have addressed to them the recent circular. With a large number of favourable answers in their hands, the council can bring the matter at once before such assurance company as they may select, with every prospect of having their proposal favourably attended to.

There is one point of some importance connected with the existing management of the Institute, which may have some influence on the preliminary arrangements of the guarantee fund. Mr. J. S. DALTON, the honorary secretary, who has taken a warm interest in the success of the fund, has for some months past been unable to attend any of the meetings of the Institute, or take any part whatever in the management. He is suffering from a most painful affection of the throat and lungs, and will in all probability, be an invalid for so long a time that he will not be able to perform any of the duties of his office during the ensuing year. Under these circumstances he thought it his duty some time since to send in his resignation of office, but the council wished him to retain it for a time, in the hope that his health would improve. This is not probable at present, and Mr. DALTON feels that he is, by retaining office, preventing the appointment of an active honorary secretary, who would do much in facilitating the preliminary arrangements of the guarantee fund. It would appear to be desirable, therefore, that some one should be appointed in his place, and it may also be a question for the council and members whether it would not be desirable to strengthen the "guarantee committee" by electing on it some of the influential members of the Institute who are not members of the council.

To show the interest which is felt on the subject of the guarantee, we publish the following letter—one of a large number we have received on the subject:—

To the Editor of the Bankers' Magazine.

SIR,—Permit me to take the liberty of trespasing on the columns of your periodical in order to direct the attention of a deserving class in Ireland—the officers of the various banking establishments—to a subject fraught with deep interest, I mean an organization with the view of upholding and transmitting their position, and preventing their families from being the recipients of eleemosynary relief.

I have long mourned over the want of a suitable provision for those amongst us, whom old age and weakly health render incapable of the discharge of their duties, as well as the families of others left destitute by death, and we have lately seen cases in point—melancholy instances in two banks—one officer abruptly snatched from the world, leaving a family totally destitute, another, over whose ashes a public appeal was made, each a type of his class, sinking from a gentleman's position into a pauper's grave.

To prevent evils of this nature a banking Institute has been formed in London, proposing amongst its rules, to establish an annuity fund for the benefit of members and of their widows, upon certain reasonable conditions. It proposes to effect the guarantee of banking officers for fidelity, at a lower rate than is at present charged by guarantee societies, besides papers, discourses, and treatises, literary and commercial, will emanate from such an Institute, instructive and valuable in their nature, reducing banking to scientific principles, and affording an agreeable desideratum to the man of refined and cultivated taste.

There are other rules of an important nature, which though not foreshadowed in the prospectus of the institute, I trust may be adopted, and it would be well to consider—

"The granting an annuity to orphans.

"Procuring employment in banks for children of deceased officers.

"Returning a certain proportion of payments to an officer retiring from a bank, provided the dis-association is not occasioned by disreputable conduct.

"The forming a guarantee society by shares to be subscribed for by bank officers, as allowing for compound interest, we have already paid over to guarantee societies in Ireland £50,000, a pretty sum lost to us and our heirs for ever."

In suggesting the *addenda* for approval to the Institute, I am far from loosing sight of the great principle of organization, and conclude by earnestly exhorting my brother officers in Ireland, cordially to join in the movement made by the Banking Institute in London, and I am confident that our Directors, when satisfied their interests cannot suffer, will foster and cherish an institution, pregnant with the moral and social improvement of their officers.

I am, yours very truly,

A BANK CLERK.

Ballinasloe, 17th Nov., 1852.

ON THE DISCRETIONARY POWERS ALLOWED BY PARENT BANKS TO THEIR BRANCHES.

It is a feature of the banking business of the present day which has not perhaps been sufficiently remarked upon, that a large and increasing portion of it is conducted, not by parent banks but by branches. This has been the case in Scotland ever since the formation of banks in that country; but it is only within the last twenty years, that the remark has become generally applicable to England, prior to that time, the private banks had established very few branches; but of late years, probably in consequence of the example and competition of the joint-stock banks, the private establishments in almost all parts of the country have been opening agencies in the smaller towns around them, with a view to maintaining their hold in their respective localities.

But it is not in England and Scotland only that branches have become a leading feature of banking, but also in Ireland and in all our colonies.

Now if it is considered, first, that branches are but a kind of factorship, or agency, and, secondly, that the amount of business transacted by them probably exceeds tenfold in pecuniary value, the transactions of all other kinds of agency put together, it becomes an interesting

inquiry on what rules or principles the intercourse between principal and agent in these establishments is carried on. How is the discretionary power of the agent regulated ? Is it absolute and unconditional, or limited and defined ; and, in the latter case, what is the extent and principle of limitation ?

It will be admitted probably, in theory, than an agent's effectiveness would have the fullest play, were his powers unlimited, and that, short of unlimited powers, the nearer his discretionary authority approached to that of his principal, the better would the business be conducted, always presuming competency on the part of the agent. Limitation of authority, then, is not to be regarded as a good in itself, but rather as an evil, necessary indeed, to prevent evils greater than itself, but still an evil. But why is it necessary ? First, because it is not in the nature of things that a principal, whether an individual or a board of directors, should grant a general unlimited power; and secondly, because an agent's interest in the business can never be held on the average of cases to be equal to that of the principal in the success of the concern; consequently there is not the same assurance of careful management on the part of the agent. So far from theory, and practically it has been found that limitation of authority is indispensable to the good management of all branch banks, private or joint-stock. Limitation, therefore, there must and will be, but as limitation, great or small is in itself an evil (as before stated) the middle point would appear to be the desideratum, that is, the smallest amount of limitation consistent with safety to the bank, and with the proper subordination of a business establishment.

But how is this middle point to be ascertained and defined ?

The following remarks are merely offered as hints on the subject, and not as full answer to so difficult a question.

The relation of principal and agent in banking business supposes the latter to be resident at a distance from the former:—thus, you may have a head office in London, and branches, say at Reading, Exeter, Plymouth, Penzance ; one branch at 40 miles from the head office, another at 100, 200, 300 miles and so on ; one branch easy accessible by railway or steam-vessel within a few hours, and another out of the line of such communication, and distant by as many days from the central power ; one branch which can communicate or be communicated with, by the head office by electric telegraph, and another having no such facility. Now, are all these branches to be treated alike ? Will you apply one common rule to them in fixing the amount and character of their discretionary power ? Manifestly it would be unwise to do so.

A little illustration may place this in a clearer light :—Take the case of the agents for the older Scotch banks, about the middle of last century ; the head office in Edinburgh, and the branches extending as far north as Inverness, the country between, wild and thinly-peopled, the roads bad, and little intercourse between the capital and the distant provincial towns. Here were circumstances, it is evident, for ample powers being confided to an agent ; for if he had to refer to Edinburgh for an answer to a customer's proposals, weeks and weeks might elapse

before an answer could be obtained, and the customer's pressing business go to ruin in the meanwhile ; but unfortunately it happened that, just in proportion as his distance from his head office called for ample powers to the agent, so was the risk great of granting him such powers ; his remote situation affording him facilities for abusing them, and for concealing his mal-administration. Even so lately as within the last twelve or fifteen years, a large proportion of the best customers, landowners and farmers, of the older branch banks at Inverness, were resident at distances varying from five to a hundred miles from the place ; not a hundred miles to be traversed in a couple or three hours, as from London to Birmingham, or Bristol ; but a hundred miles over a country—

> "Where wild woods grow, and rivers row,
> Wi' mony a hill between ;"

where the traveller has to encounter mountain roads, rivers, and stormy arms of the sea. Imagine the risk and difficulty of the agent's position, in dealing with elements such as these, and the difficulty of his principals in Edinburgh, in keeping an effectual and *informed* supervision over the business of such a branch. Supposing bad debts to be made, what facilities the agent had for concealing them, for indefinitely renewing bills, and postponing the evil day of settlement with his principals.

This peculiar state of things appears to have been successfully met, by the agent being held personally responsible for half (or some other proportion) of the bad debts he made. A handsome salary was allowed to him to compensate for the risk he incurred. Yet, notwithstanding the useful operation of this plan, for a time, it was but a rude and clumsy mode of securing the due execution of a delicate and difficult trust. The interest of the agent was obviously, to do as *little* business, that is, to incur as little risk as he could, compatibly with holding his situation. It was this plan (it may be mentioned in passing) of the agent being held responsible for part of the bad debts he made, that introduced the word "agent" as applied to the managing man in the branches of the Scotch banks, instead of the term "manager." The sharing of the bad debts made the managing man something more than the mere servant of the company, which is implied in the word "manager." But to proceed.

Contrast the position of the bank agent at Inverness in the time spoken of, with that of the bank agent or manager in an English town, say a branch of the London and County Bank. How easy the intercourse here between the parent bank and the branch :—how rapidly an answer can be had from the former to a question from the latter by letter, or even by electric telegraph. In this case surely the branch manager incurs far less responsibility in conducting the business of its principals, than the bank agent at Inverness or Stornoway. He incurs less responsibility because there is not the same occasion for his incurring responsibility ; and for the same reason it is not necessary that he should be intrusted with the same powers.

This contrast illustrates in a remarkable manner how very different situations, nominally the same in character, may be in reality ; what a different amount of responsibility may attach to the agent in each case, and how different, therefore, the considerations must be that should regulate the discretionary power of each.

The distance, then, between the parent bank and branch must form one main element of consideration in fixing the amount and character of the discretionary power accorded to the latter. The ease or difficulty of communication between them will form another item in the estimate. To show how these considerations operate. The banks in Scotland, to which reference has been made, are gradually giving up the practice of appointing agents on the principle of the personal liability of the agent for bad debts made, and appoint them simply as managers, although the old name of "agent" is retained, probably by mere force of habit. This change, it is evident, has been brought about by the firmer hold the head offices have acquired over their branches, through the quickened and improved intercourse between the most distant parts of the country and the capital. But even in these days of rapid communication, all the branches of a great bank are not equidistant from it, and it would therefore be impolitic to impose upon all of them alike, a set of unvarying rules. No doubt system should prevail in every great establishment, but in an enlarged and liberal sense, following rather the spirit than the letter of any established code of rules ; for to carry the practice of system so far as to bend all the branches of a great bank to one common measure and character of discretionary power, would appear to be rather a piece of banking pedantry than of judicious practical management. In a considerable degree, every branch should be "a law unto itself," observing local peculiarities and obstacles, under the regulation, indeed, of the parent bank, but rather in the way of superintendence *(de post facto)* than of active interference in each case. The agent may be regarded as a high-spirited horse. It will not do to let him have all his own way, but then he must not be violently checked, pulled up or turned aside. He is full of strength and energy for his employer's work, and half the generous animal's power will be fretted and frittered away if he is unskilfully driven.

On the other hand, it must be admittted that, our high-spirited agent has his dangerous points. He is eminently a gregarious animal, and is apt to identify himself too closely with the views and feelings of his customers, instead of regarding them coolly, ab extra, as the parent bank does. It is a well-known feature in the correspondence of every great bank with its agents or managers, that the latter almost invariably, and perhaps unconsciously, take the tone of *partisans* of their customers, so that the action and opinions of the head office become necessarily of a moderating and costive character in self defence.

To obviate the risk of the agent or manager thus acting as a partisan of his customers, (as versus the head office), some banks have adopted the plan of having a local or branch board of directors; but this is

dying out gradually, as the remedy has been found to be worse than the disease. These little boards, composed of two or three magnates of the provincial town, have in most cases proved a kind of *imperium in imperio*, more troublesome to control than the local agent or manager himself, because more independent than the latter, and too much mixed up with local personalities, politics, interests, and jobs, to be implicitly trusted by the general board. Local boards, therefore, are fast dying out in England. In some of our colonies, however, they are still found to be necessary, as in the case of the branch banks of British North America, which, from their distance of the head office, require a machinery of management different from what is found suitable at the present day for this country.

At the outset of this paper, it was stated that branches had become of late years a feature of private, almost as much as of joint-stock banks. It is perhaps necessary, in some degree, to explain and limit this statement. Many of the ablest and most prudent of the private bankers have doubted the policy of their opening branches, considering their own system of business, book-keeping, and inspection, to be ill adapted for delegated action at a greater or less distance from the central power. These bankers, therefore, have argued that however appropriate and useful branches may be to a joint-stock bank, whose system has been formed to include them, they are rather a source of danger than of profit to the private banker, as diverting his attention from his strong principle, *concentration:* hence they look with anxiety to the probabilities of the first commercial crisis that may occur, as being full of risk to those of their brethren, who may have, without sufficient consideration, forsaken their strong point for their weak one, and diffused themselves over a number of little country towns, their agents being generally shop-keepers or solicitors, classes that for the most part make very indifferent bankers. Very many, therefore, of the oldest and most influential of the country bankers, where they have thought it necessary to open agencies at all, have appointed agents with the most limited powers; giving them merely a cash-book (but no ledger), requiring daily accounts from them, of all business done; confining the business to granting a few facilities for the payment and receipt of monies, and permitting no advances to be made by the agent, in any shape, without reference to the principal. Such agencies, therefore, are but the shadow or the name of branch banks, although they form no inconsiderable portion of what are called the branches of private banks.

One word as to the branches of the Bank of England. It is only within the last five-and-twenty years that the Bank has opened branches. They have, however, been restricted almost entirely to one kind of banking business; the discount of first-class commercial bills; so that they have entered very little into competition with the country banks in regard to general business. The discretionary power allowed to the agents of the Bank of England is understood to be of the most limited character.

In conclusion; if some of the expressions, in the course of this article, may seem to advocate a kind of banking anarchy, or inde-

pendence of the head offices on the part of branch banks, this is very far from our intention. Our endeavour has been to shew merely that in the case of branches widely dispersed, subject to differences of local custom and competition, and situated at various distances from the head office, it is not expedient to impose upon all of them the same restrictions or to allow to all of them the same degree of discretionary power; but that over all of them it is undoubtedly necessary to exercise the strong, although considerate, hand of authority.

Reduction in the Fixed Issues in England and Wales.

The following is a List of the several Private and Joint-Stock Banks which have ceased to issue their own Notes since the passing of the Bank Act of 1844, with the Dates when they ceased to issue, and the Causes.

DATE OF LAST RETURN.	NAMES.		NO. OF BANKS	AMOUNT.
Prior to the 12th October, 1844, when the Act came into operation.	1. Bristol Old Bank.—Baillie, Ames & Co.	Bank of England Notes	1	£89,540
	2. Bishop Waltham, Hampshire.—Gunner & Co.	Ditto	1	1,993
	3. Cambridge Bank.—Fisher & Sons	Ditto	1	8,753
	4. Ditto Humphrey & Son	Closed, 1845	1	2,615
	5. Margate Bank.—Cobb & Co.	Bank of England Notes	1	9,996
	6. Oxford University & City Bk.—Sir John Lock & Co.	Ditto	1	15,705
	7. Staines Bank.—Thomas Ashby & Co.	Ditto	1	9,244
	8. Wrexham and North Wales Bank.—R. M. Loyd	Ditto	1	4,464
	9.*Western District Joint Stock Banking Company	Dissolved	5	18,125
	Total Issues given up prior to the Act of 1844 *taking effect amount to*		..	160,435
April 12, 1845	10. Whitby Bank.—Frankland & Wilkinson	York City & County	1	2,076
Sept. 13, „	11.*Suffolk Joint Stock Banking Company	Dissolved	6	7,449
April 11, 1846	12. Dover Union Bank.—Latham & Co.	Bankrupts	1	9,577
July 4, „	13.*Stockton and Durham County Joint Stock Bank	Dissolved	2	8,290
Oct. 10, „	14. Romsey and Hampshire Bk.—Wm. Footner & Sons	Bank of England Notes	1	3,875
Dec. 5, „	15.*Leeds & West Riding Joint Stock Banking Company	Dissolved	2	18,937
May 29, 1847	16.*Leeds Commercial Joint Stock Bank	Ditto	1	13,914
Oct. 9, „	17. Abingdon and Wantage.—Henry Knapp	Bankrupt	2	29,316
„ „	18. Penzance Union Bank.—Ricketts, Enthoven & Co.		4	31,461
Oct. 16, „	19. Leek and Congleton.—Fowler, Gaunt & Co.	Bank of England Notes	2	4,009
Oct. 23, „	20. Salisbury and Fordingbridge Bank.—Brodie & Co.	Bankrupts	2	23,335
„ „	21. Shaftesbury & Hendon Bank.—Brodie & King	Closed	2	9,813
Oct. 30, „	22. Shrewsbury & Market Drayton.—Adams & Warren	Bankrupts	2	49,700
„ „	23. Honiton Bank.—Flood & Lott	Ditto	1	19,015
Nov. 6, „	24. Bridport Bank.—Gundry & Co.	Ditto	5	24,698
Nov. 27, „	25. St. Albans and Herts Bank.—Gibson & Sturt	Closed	1	2,333
July 29, 1848	26. Grantham Bank.—Kewney & King		2	19,401
Oct. 7, „	27.*Sheffield and Retford Joint Stock Bank	Closed	2	18,744
Dec. 2, „	28. St. Albans Bank.—John Samuel Story	Bankrupt	1	3,743
Dec. 23, „	29. Wrexham Bank.—Samuel Kenrick	Closed	1	3,289
Sept. 22, 1849	30. Yeovil Old Bank.—Messrs. J. & H. B. Batten	Bank of England Notes	1	10,033
Oct. 20, „	31. Christchurch Bank—Messrs. Tice & Welch	Closed	..	2,840
June 24, 1850	32. Reigate and Dorking Bank—Messrs. Nash & Neale	Failed	..	13,700
Jan. 1851	33. Bedford & Bedfordshire Bank. Com.—Trapp & Co.	Closed	..	8,515
Jan. „	34. Peterboro' Bank—Simpson & Co.	Closed	..	12,832
Feb. „	35. Oxford Bank—J. & R. Morrell		..	14,277
May „	36. Marlboro' and North Wilts.—Ward & Co.		..	12,490
June „	37. Bromsgrove Bank.—Rufford & Co.	Bankrupts	..	16,799
June „	38. Stourbridge Bank.—Rufford & Co.	Bankrupts	..	17,295
Oct. „	39. Newport Old Bank.—Williams and Sons	Bankrupts	..	8,600
July 3, 1852	40. Warminster & Wiltshire Bank—Everett, Ravenhill & Co.		..	24,896
Aug. 28, „	41. Stourbridge Old Bank—Bate and Robins—(United with Midland and Birmingham Joint Stock Bank)		...	17,560
	Total Reduction in the Circulation, under Act 7 & 8 Vic., c. 32, to Oct. 2d. 1852		..	583,247

35 Private Banking Firms, with Branches.....£497,788
*6 Joint Stock Banking Companies..... 85,459
£583,247

RIGGING IN THE CORN TRADE BY THE FRENCH GOVERNMENT.

We are indebted for the following article to *the Economist*:—

We are no believers in the frequent assertions which are made in reference to particular trades, that they are carried on at a loss. Some periods may no doubt occur when such is the case; and individual transactions are frequently attended with a loss. But there is nothing more certain than that, on the average, any trade to be continued must yield a profit proportioned to the capital employed, the risks incurred, and modified by any peculiar characteristics of the trade, rendering it less or more attractive. Some of the largest fortunes have been made in trades that have always been represented as unprofitable. When, therefore, we hear of a long train of transactions that are said to be unprofitable, and yet persevered in, we are very incredulous, and are disposed to believe that there are advantages in some way not visible at first sight. It undoubtedly has happened before now that a ruinous business has been carried on for a time, and in very extensive ramifications, rather with a view of raising funds to support the sinking fortunes of a number of houses, than for the legitimate purpose of employing capital at a profit. In the early part of the present century there occurred a very memorable instance of an extensive ramification of houses in most of the chief towns in Northern Europe, including England, the object of which, whatever it was at first, certainly ultimately degenerated into a huge system of accommodation paper; transactions to a large amount were carried on, but at last more with a view to supporting the credit of the parties engaged, than to a profitable business. The whole exchange operations of Europe were saturated with the paper thus created; and, as might have been expected, on the first occurrence of panic and discredit, the whole system fell to the ground, like a pack of cards. But then, it must be remarked, that in such cases the drawing of bills and the use of credit is the most essential element for the object in view.

But it has remained for 1852 to witness a series of transactions in one of the most important branches of our trade, which, after having watched for many months, we own to be entirely incapable of explanation on any of the ordinary and established principles of trade, or on the ground that they have been made the means of sustaining credit or raising money by accommodation. Since the month of February last, when the present government came into office, transactions in foreign grain have taken place upon a very extensive scale, in several foreign markets, of a character which has excited the utmost astonishment amongst those legitimately connected with the trade. The head-quarters of these operations appears to have been in London. Agents were appointed to purchase wheat in Amsterdam, Rotterdam, Hamburg, and St. Petersburg, and flour in New York. The wheat and flour thus purchased have been consigned to two houses—one connected with the American trade, and one with the continental trade—and from them it has been all centred in one broker or factor for sale.

The first thing that attracted attention to these transactions was the unusual extent of the purchases in each market by agents who were but little connected with that branch of trade, and at prices which it was impossible could be again realised in England, including the freight and charges. At first it was thought that these transactions were the commencement of some extensive speculations for a future rise; but the mode in which they were conducted soon showed that that could not be the case; for the purchases being made without limit abroad, were sold on their arrival in London with little regard to the cost, the agents acting apparently without limit, but with instructions to effect absolute sales. And, notwithstanding the heavy losses on the sale, the transactions continued without interruption;—purchases were made abroad by the same agents, consigned to the same parties here, and sold as fast as they arrived at what could be got, by the same factors, whose instructions, to judge by the way in which the business was done, had reference rather to effecting absolute and immediate sales, than to securing a profit for their principals. Then, again, there is no reason to believe that they were undertaken with a view to raise funds on the credit of the parties engaged, by drawing and negotiating bills; because, in general, the purchases have been made on the spot with cash, and no bills drawn against the cargoes. Again, it cannot be said that they were purchases made in order to provide cargo for ships which could not otherwise find employment; because, in most cases, ships were specially chartered for the purpose.

It is obvious, then, that these transactions have been founded on none of the ordinary motives which lead to commercial transactions; without any view to profit, or to raising funds upon credit, or to supplying freight for unemployed ships. On the contrary, there has been a remarkable mystery thrown over the whole affair. Who the real principals in the transactions were and are, no one has yet discovered; and we have reason to believe that the numerous agents engaged are themselves as ignorant of the real parties at the bottom of the plot as any indifferent person. The agent in whom the money transactions are centred is one of the wealthiest and most eminent of our city monetary houses. The other agents are all respectable persons, but we believe are all innocent of any knowledge at whose real risk this business is done, who bears the enormous losses which have resulted from it, and continued to be incurred up to the time we write. All, therefore, who have watched these transactions have been forced to a conclusion that there is some object at the bottom, altogether independent of commercial considerations.

These transactions began, as we have stated, in February. Purchases of wheat were made simultaneously in Rotterdam, Amsterdam, Hamburg, and St. Petersburgh, and of flour in New York. The prices paid in each of those markets were as high as those which could be obtained in England; the cargoes, therefore, were sold at a loss equal to the whole of the expenses, amounting on the wheat to at least 5*s.* a quarter, including duty, and on the flour to at least 4*s.* a barrel. These

purchases abroad and sales in England continued, with always about the same result, from February to June; and, it was remarked, as the elections proceeded, they were increased in their amount, and in the apparent recklessness and disregard to the results. Throughout July and August they seemed to reach their climax. In the foreign markets which we have named, the agents for this business were the sole regulators of the market; every advice to other houses mentioned the market as either higher or lower, brisker or flatter, just as those agents went in or withdrew from it. And the most singular point in the whole affair was, that at the same time that regular houses were buying cargoes of wheat here to ship to Holland at a profit, the agents of this strange and mysterious operation were buying wheat in Holland to sell at a loss in England. The transactions appeared in August to be drawing gradually to a close, and early in September it was announced that Mr———, in Amsterdam, and other agents elsewhere, had announced their mission at an end.

Unable to apply any ordinary commercial explanation to these transactions, the merchants engaged legitimately in the corn trade very naturally looked for some political ground on which they could account for it. And, seeing that the commencement of them coincided with the time the Protectionist Government came into office, and that they appeared to reach their climax during the time of the county elections, they very generally arrived at the conclusion that they had some connection with the Protectionist party, and were intended to influence the elections. This explanation of the mystery has, however, been somewhat disturbed in consequence of a resumption of the same operations about a month ago. The same agents are all again employed—the same machinery set at work. The most extravagant prices have been given abroad, and the cargoes continue to be sold at a great loss on arrival here. No want of money is seen:—everything is paid in cash:—no bills drawn in direct connection with the shipments. During the last week at Amsterdam, white Dantzic wheat, mixed, was sold at 50*s.* a quarter, which, with charges, would cost 55*s.* here, and the value of which in Mark-lane is 46*s.* Inferior wheat was sold at the same time at 44*s.*, which, with charges, will cost 49*s.* here, and the value of which in Mark-lane is 43*s.* White Zealand wheat, scarcely suited for this market at all, sold at 40*s.*, which, with charges 5*s.*, will cost 45*s.* here, the value of which in Mark-lane is 39*s.* at the outside. This is a specimen of these operations throughout the whole period. As little regard has been paid in purchasing wheat to the quality suitable for the market as to the price paid. The warehouses of those ports have been cleared of rubbish, the accumulation of years.

The mystery, therefore, still continues. The suspicion of a connection between these transactions and the English elections, with a view to favour the Protectionist candidates, has been weakened by the fact that these transactions have again been resumed on a scale as large as before. And it is certain that now when the ex-Protectionist Government has adopted Free Trade, they cannot be suspected of plotting to depress the prices of grain, and so to increase the eagerness of their old supporters to adhere still to Protection.

But for so remarkable an operation as we have referred to, by which it is calculated that the loss deliberately incurred cannot have been much less, in one way and another, than £100,000, it is felt there must be some intelligible reason. Knowing how close a sympathy there is between the price of grain and the value of public securities, it has been suggested that these grain transactions have have had a relation to some extensive stock operations. But there is no reason for believing that any such speculations have taken place here as would appear to justify such a conclusion.

A far more likely explanation suggests itself in relation to the events in France. Ever since the commencement of the present year, it has been of the utmost consequence to maintain low prices of food in France. It is well understood now how much influence the price of the first necessaries of life exercises over the condition of the great masses of the people, as well as upon the value of the public securities. If we look to the political condition of France during the present year, to the financial operations of the government, and to the huge speculations in railways in which those immediately connected with the government have been engaged, and which have exercised indirectly the most important influence over the prospects of the government, as well as over the fortunes of its individual members, it is easy to understand the anxiety which has been displayed to keep down the prices of corn in France. It will be remembered that, at the close of the last harvest, when it was generally believed that the result was very unfavourable, an article appeared in the *Moniteur* contradicting, in almost impassioned terms, the general reports that the harvest was inferior, and rather implying that it was unusually abundant. That article had its effect for the time. But it now turns out that the general rumour was correct, and that the *Moniteur* was wrong ; for the price of grain has considerably risen in France since that time. It is, moreover, a curious fact, that the arrangements for the extensive purchases to which we have referred, extended to all the chief exporting countries, *except France*. And it is certain that, compared with the enormous political interests at stake, the extensive financial arrangements, and the railway speculations on hand, the loss of £100,000, in order to prevent any considerable rise of prices in France, was a most insignificant matter.

But, then, it will be asked, how the particular operation we have described could effect such a purpose ?—How importations of grain into England would contribute to the low prices desired in France ? A close examination of the subject will show that it was not only a very ingenious, but even the only practical mode of accomplishing such an object. The more obvious and direct way would have been, no doubt, to import foreign grain direct into France ; but then it will be borne in mind that the high import duties rendered that impossible, while the importation of it into England, and the depression of prices here, to whatever extent they were acted upon, had, necessarily, an immediate effect upon the markets in France. It is a familiar fact to our readers that France has furnished this country with more wheat

and flour than any other country during the last three years. It is, moreover, our nearest source of foreign supply. The markets of France have, therefore, been subjected to an influence from Mark Lane as immediate and direct, as the markets of Norfolk, Lincoln, or the North of England are. Keep down the London markets to a certain rate, and exportation from France is no longer possible. Let the London markets rise, so that it will answer to send grain from France, the French markets will immediately follow those of London. Considering, then, the fiscal regulations of France and England, it is obvious that the most effective means of influencing the French markets is by depressing the London markets.

For these, and for other reasons, we are therefore disposed to think that these mysterious operations have been animated rather by the spirit of M. Fould than by that of Mr. Disraeli.

The important practical consideration, however, which arises from the state of matters which we have described is, that the corn market has been for some time past, and still is, placed under the artificial depression of forced transactions at a great loss to those engaged in them. How long they may be continued it is impossible to say; but if there is really a deficiency of corn in Europe—an opinion which begins to gain ground—the more consumption is now encouraged by low prices, the more marked must the rise of prices be hereafter.

The Banking Institute.

FOREIGN AND COLONIAL EXCHANGE.

On Tuesday evening, 9th November ult., the ordinary monthly meeting of the Banking Institute was held at 52, Threadneedle-street, to discuss a paper by Mr. G. M. Bell, of Northallerton (the Secretary of the London Chartered Bank of Australia), on foreign and colonial exchange, with a special reference to our intercourse with Australia.

The chair was taken by Mr. MacGregor, M.P., who remarked that few subjects were more important or less understood than that of foreign and colonial exchanges. With respect to our own colonies a most vicious system had been introduced for the purpose of giving to the money of the United Kingdom a fictitious nominal value. In our North American Colonies, for instance, 18*s.* represented 20*s.* in nominal value. In the West India colonies that nominal value was increased by nearly one-half. This lead to great difficulty and inconvenience in our commercial operations with those colonies. To make exchanges clear the same standard should be adopted both in the mother country and the colonies. The paper which was about to be read by Mr. Lovell (Mr. Bell being unable to attend) would bear on this subject, and would, he had no doubt, be both instructive in itself and valuable as eliciting opinions from gentlemen of high authority, who were present.

Mr. Lovell then read the paper as follows:—Exchange means, generally, the giving and receiving of one thing for another. When any article is said to possess exchangeable value, we mean that it can be given and received for

something else. This general principle of exchange was well known and practised in the earliest times. It is synonymous with barter—a system peculiar to the early condition of every country before the introduction of a particular medium of exchange.

That system of giving and receiving one article for another which is practised by the inhabitants of any country among themselves, may be called their domestic exchange; and every banker may readily obtain a competent idea of this system of exchange, by attending to the daily operations carried on at his own counter. As the world grew older and society advanced in knowledge, and the inhabitants of one country became desirous of exchanging their productions or manufactures for those of the inhabitants of another country, the system of dealing between these different countries, acquired the name of foreign exchanges. Thus we had first the domestic exchanges, by which one thing was exchanged for another between the inhabitants of the same country, and then the foreign exchanges, by which the productions and manufactures of one country were exchanged for those of another or of other countries.

In addition to these two systems we have for many years had in active operation a third, and that is the exchanging of the productions and manufactures of one country for those of other countries dependent upon it, such dealings for instance as are in operation between the mother country, Great Britain, and her colonies in all parts of the world. These may be called colonial exchanges; and as this paper professes to treat only of foreign and colonial exchange, I shall for the present overlook the system of domestic exchange, and confine my observations to the two last.

1. To begin, then, with foreign exchanges, that is the system under which the inhabitants of one country exchange their productions and manufactures with the inhabitants of other countries. This has been often and clearly explained by different writers upon commercial, banking, and financial subjects, and those who wish to acquire a more extensive and thorough acquaintance with its various bearings than can be given in a paper of this kind, may consult with advantage the writings of Adam Smith, McCulloch, Gilbart, Tait, Waterston and others, and the article "Exchange" in the *Encyclopædia Britannica*.

You will readily understand that if the commodities supplied by one country to another be equal in value, the exchange between those two countries must then be at par or equal;—the transactions are balanced and adjusted, and nothing remains due from either side. This is in fact what is understood by the par of exchange, or by the exchanges being at par. Or, in reference to money, when for a sum of money paid in England, containing, according to the English mint, a certain number of ounces of pure silver, you obtain a bill for a sum of money to be paid in France, containing, according to the standard of the French mint, an equal number of ounces of pure silver, the exchange is said to be at par, or equal between France and England. In other words, when the exchanges between any two countries are said to be at par, it is a sign that the debts due by the one country, are compensated by those due to it from the other. But, I may remark, that this is a condition of affairs very rarely witnessed; and you can easily comprehend that in the extensive mercantile transactions constantly carrying on between one commercial country and another, the chances are very faint of the exchanges being at any time entirely at par. On the contrary, you can readily suppose that they must frequently diverge more or less from this point of equality. The cause of this divergence lies in the respective operations of these countries. If the one country exports a larger amount of goods to the other country than it imports from that country, then the exchange is in favour of the exporting country—that is to say, it is a creditor to the amount of the surplus of its exports over its imports. It has this difference to receive, and having a sum to receive, the exchange is to that amount in its favour. Now where there are a great variety and amount

of transactions constantly taking place between any two countries, though it rarely indeed happens that the exchanges are at par, yet there is a constant tendency to an adjustment of balances, and in this way the exchanges come in ordinary times to acquire something like a fixed rate between one country and another, equivalent in most cases to the expense of transmitting gold. Experience also shows, that with every increase in the facility of intercourse and exchange, there is a tendency to an equality and steadiness of value, which becomes more and more uniform year after year, and is very much more so now than was the case fifty or a hundred years ago.

Now the most important instruments we possess by carrying on trade between foreign countries, are bills of exchange. They are called bills of exchange because they have their origin in commerce, and are intended to represent the value of commodities, passing or which have passed between one country and another. They are said to have been invented by the Jews or the Lombards, for the purpose of withdrawing their property from countries from which they were expelled. They were not used in England until 1307, in the first year of Edward II., and in the fifth year of Richard II.; they were the only method allowed by law for sending money out of the kingdom. The manner in which bills of exchange where first identified with commerce, has been supposed to be this:—The drawer and acceptor were persons respectively residing in different countries, and the bill was an order in writing, delivered to a third person, who was about to visit the country where the debtor resided. It might happen that this person was not going to return. In that case, he might advance the amount of the order to the creditor, and receive the money from the debtor when he arrived at the end of his journey. In the event of his only going part of the way, he might meet with another party who was going the rest of the distance, who would advance him the money for the order received from the creditor, which would then be transferred In this way it would be found, that an order of this kind might be transferred to a fourth or fifth, or indeed, to any number of persons. To effect these operations, each party receiving the order or bill, must be considered to have confidence in the drawer, or some one or more of the endorsers, and also to receive some compensation for his trouble. If the order was payable at a certain number of months, after date, his compensation would be increased by receiving interest for the time the bill had to run. The progress of commerce and civilisation have led to improvements in the form of bills of exchange, and the manner of negotiating them, or passing them from hand to hand; but the original principal remains the same at the present day.

Bills enter largely into the system of the foreign exchanges. When there is a balance due from one country to another, if not adjusted by a remittance of goods of some kind, or bills of exchange, it must be adjusted by that which is the medium of traffic, between individuals as well as nations—that is gold! As the precious metals are the only satisfactory medium for squaring up the difference between the debtor and creditor side of an account, among individuals, so they are the last and best adjusters of balances among nations.

In modern commerce, it is the practice of merchants when they have made a shipment of goods, to draw a bill upon their foreign correspondents, for the amount; and it is the practice of the other parties on the other side, to act in the same manner; and thus it happens, that if the amount exchanged between the two countries is the same, the demand for bills, and the supply of bills, will be equal. The exchange, as before said, is then at par. But if the balance is more on the one side than on the other, the difference may probably be adjusted by transmitting gold. The expense of freight and insurance for transmitting gold is of course considerable; and if a merchant can obtain a bill to remit to his creditor for a little more than the amount of his debt, and less than the expense of sending gold, he will send a bill: but if sending a

bill would cost him more than the risk and expense of sending gold, then the gold will be sent. So thus in point of fact, the expense of freight and insurance, in sending gold from one country another, constitutes the true difference of exchange between the two countries. But, from this point, the exchanges will sometimes diverge so as to be a little more or a little less. This is occasioned by variations in the demand and supply of bills of exchange. Thus in the cases of London and Paris:—If you can sell a bill in Paris for more than the amount for which it is drawn, the course of exchange is said to be against England, and in favour of France; but, if on the contrary, you are obliged to take less for your bill than the amount for which it is drawn, then the exchange is said to be against France, and in favour of England. The price of bills is regulated like that of most other articles—by demand and supply; and these, again, are regulated by the state of trade, between one country and another; the exchange being said to be favourable or unfavourable to any particular place, according as a larger or smaller amount of the currency, of that place, is required to discharge any given amount of foreign payments.

I have alluded to the sale of bills. This leads me to observe, that the selling and negotiating foreign bills of exchange is a branch of business which, in this country at least, is independent of banking. English bankers do not engage in this sort of traffic. It is carried on by a distinct class of men, called "exchange brokers." If the customer of a country banker pays in a foreign bill, or a parcel of foreign bills, to his account, they are not immediately passed to his credit, but are handed to the exchange broker, who disposes of them to the best advantage, and pays over the proceeds to the banker, which are then passed to the account of the customer.

The manner in which the buying and selling of foreign bills is conducted, is thus described by Waterston, in his "Cyclopædia of Commerce:"—

"In this country, the buying and selling of bills on foreign countries is conducted by brokers, all such transactions centering in the metropolis. In London, the days for the negotiation of foreign bills are Tuesdays and Fridays —*the foreign post days.* The brokers go round to the principal merchants, and discover whether they are buyers or sellers; and a few of the more influential, after ascertaining the state of the market, suggest a price at which the greater part of the transactions are settled, with such deviations as particular bills may be subject to from their high or low credit. For the bills they buy on one post day, houses of established credit pay on the following post day, when they receive the second and third bills of the set; foreign bills being usually drawn in sets of three. On the evenings of Tuesdays and Fridays the market rates for bills on all the principal foreign cities, with the current prices of bullion, are published in Wetenhall's 'Course of the Exchange.'"

The late Mr. Rothschild stated, before the Parliamentary committee of 1832 —"I purchase regularly, week by week, from £80,000 to £100,000 worth of bills, which are drawn for goods shipped from Liverpool, Manchester, Newcastle, and other places; and I send them to the Continent to my houses. My houses purchase against them bills upon this country, which are drawn for wine, wool, and other commodities. But if there be not a sufficient supply of bills abroad on this country, we are obliged to get gold from Paris, Hamburg, and elsewhere."

It being the fact that English bankers, as such, are not in the practice of buying and selling foreign bills, or dealing in the exchanges, although foreign and continental bankers make this more or less a part of their profession, it has long been a moot point whether, in the conducting of their ordinary business bankers ought to pay any regard to the fluctuations of the exchanges. The subject has been argued over and over again, and various opinions were advanced before different committees of the House of Commons. The question

applies chiefly to country bankers, who issue their own notes; and, generally, to all bankers who are supposed to have a proper regard for the safe management of their business.

The condition of the foreign exchanges is the result of the operations of trade; and the bank that would undertake to regulate the foreign exchanges, undertakes of necessity to regulate also the operations of trade, both at home and abroad. It will be remembered, that the Bank of England considered it to be an important part of its duty, to regulate the foreign exchanges; and it was held to be the duty of the country banks of issue to conform in every respect to the action of the Bank of England. Certain writers on the currency considered that, by attending to the exchanges and lessening the supply of currency when they began to fall, and increasing it when they began to rise, the value of paper money might be kept very nearly on a level with the value of the metallic money that would circulate in its stead, were it withdrawn; and that this ought to be the conduct of every prudent banker obliged to pay his notes on demand. The country bankers, on the other hand, repudiated the idea of being under any obligation to regulate their issues by the foreign exchanges, or that the foreign exchanges were in any degree influenced by the issues of country banks. Their issues of notes, they alleged, were regulated, and could alone be regulated, by the demands of trade. It is not my intention to offer any opinion of my own on the present occasion on this subject, having already done so in some of my published writings; but even supposing it to have been the duty, as was insisted on, of the country bankers to regulate their issues by the foreign exchanges, it may now be worthy of consideration whether the act of 1844, passed by Sir Robert Peel, fixing the amount of notes to be issued by each bank of issue, did not thenceforward completely relieve them from any implied obligation to regulate their issues by the foreign exchanges, and whether, indeed, the Bank of England is not also entirely relieved from the necessity of attempting to regulate her issues by the influx and eflux of bullion. Whether or not that Act has had any beneficial effect in regulating the conduct of bankers, moderating the fluctuations of the foreign exchanges, and improving the commercial condition of the country, are questions fairly open to discussion.

Now, although the English bankers do not deal in the foreign exchanges, they are supposed, as men of business, to have a general idea of the nature of these operations, and to know also something of the principles which regulate the rates of exchange upon different countries. The moneys of different countries vary in denomination and amount; and in comparing the money of one place with that of another, it is usual to reckon the one as fixed, and the other as variable. It may be observed, however, that no perfect par of exchange can possibly exist, as between two countries which have not the same standard metal for their respective currencies. The country whose money is calculated at a fixed price is said to receive the variable price, while the other country is said to give the variable price. The higher the exchange, therefore, between any two places, the more will it be in favour of the one that receives the variable price. Thus, in the case of London and Paris, London receives from Paris a variable amount of francs and centimes for £1 sterling; and if you take the par at 25 francs 34 centimes for £1, the exchange will be 5 per cent. in favour of London when it rises to 26 francs 62 centimes, and about as much against London when it falls to 24 francs 7 centimes. According to the evidence given by Mr. Rothschild, when we say that a par of exchange exists between this country and France, we mean that we can then obtain 25 francs and 20 centimes in Paris for a sovereign. When for the sovereign we can get only 25 francs and 15 or 10 centimes, we then consider the exchanges as so much below par. The sterling value of the sovereign is thus far reduced; and it is evidence of the fact, that we are sending gold

abroad upon which we receive no premium. In this state of things the exchanges are unfavourable to us. If we calculate the value of the currency here against that of the currency of France, we may, at any time, ascertain the par pretty correctly, by adding to that value the premium then payable for gold. The exchanges are against the country which pays the higher premium, and the amount of the excess is the measure of its loss.

The custom of merchants has established the principle of drawing foreign bills at a "usance" after date. A usance from Amsterdam, Rotterdam, Hamburg, or any place in Germany is one month; from France, thirty days; from Spain and Portugal, two months; from Sweden, seventy-five days; from Italy, three months. Foreign bills are usually drawn in sets of three bills, for the same amount, so that, in the event of the first remitted being lost or stolen, the second or third may be made available. When one of the bills has been accepted, the others of course are of no service.

Next to bills of exchange, the precious metals, and especially gold, form an important element in the fluctuations and regulations of the foreign exchanges. They are the medium by which all differences in the exchanges are ultimately arranged. When the exchanges are against England, the result is an exportation of the precious metals to adjust the balance. The first intimation which the country bankers, and, indeed, the commercial classes generally, receive of an unfavourable state of the exchanges, is by observing a large or continued diminution of the bullion in the returns of the Bank of England. It was customary on former occasions to consider the Bank of England as chiefly instrumental in producing great fluctuations in the foreign exchanges—first, by issuing notes to excess, and afterwards by suddenly restricting their issues. By issuing notes to excess, the Bank of England is said to stimulate prices, and create great speculation in trade, thereby rendering the exchanges unfavourable, and causing a demand for gold for exportation. When this takes place, the Bank, by again restricting its issues, depresses prices, and produces often great commercial distress, in its endeavour to turn the exchanges and get back the gold. There are writers who maintain that a depression of the exchanges for any considerable period, accompanied by an exportation of gold, is infallible evidence, independent of all other considerations, that the currency is relatively redundant. According to M'Culloch, "If the exchange be generally on the advance, it is a proof that the currency of the country is becoming deficient, and that it may be slowly and cautiously enlarged; and conversely, when it is falling." This is the principle of regulating the currency by the foreign exchanges; and whether or not this is a sound principle is a matter of opinion. But under any circumstances, an unfavourable state of the exchanges will occasion an exportation of gold; and a continuous drain of gold will be an indication that the exchanges are unfavourable.

Now, this exportation and importation of gold, in reference to the exchanges, is not carried on by the bankers, but by merchants and parties who deal in exchanges—such houses, for instance, as that of Messrs. Rothschild. These gentlemen deal in exchanges; they may be said to be the great regulators of the foreign exchanges. You have seen that in the case of foreign bills, the exchange brokers are in the habit of going round to the different merchants and buying them up at a regulated price; and you have heard to what a large extent these operations are conducted by the house of Rothschild. So in the case of the exportation and importation of gold, this is managed by such houses as I have mentioned, by constant observation of the fluctuations of the exchanges at home and abroad. Gold is an article of merchandise, and its supply in any one place is regulated by the demand. Since 1819, the trade in gold and silver in this country has been perfectly free. Any one has full liberty to engage with foreigners in this traffic; and such is the facility with which bullion may be conveyed from one country to another, that

its value in Hamburgh or Amsterdam will hardly vary one-eighth per cent. from its value in London, without causing its immediate transmission from one country to the other. In the ordinary course of things there is a regular payment of gold to this country from the whole world, affording undoubted evidence that the bills drawn in foreign countries are not equal to those drawn at home. England seems to be the load-stone which attracts gold from all parts of the globe.

I may farther observe on this part of my subject, that under the general head of foreign exchange, are comprised nominal exchange, real exchange, and computed exchange. The first has reference to the comparative value of the currencies of different countries, which depend upon the relative value of bullion in those countries, and on the quantity for which their coin or paper money will exchange. If the bullion, coin, or paper money of two countries are so adjusted, that a given quantity of the one will exchange for a proportionate equal amount of the other, the nominal exchange between those countries will be at par or equal. In whatever respects the currency of either country fails to measure an equal value of the currency of the other, the nominal exchange will accordingly be so much above or below par; so much in favour of or against the one or the other. *Real* exchange is that which relates to the interchange of commodities without reference to the precious metals. When two nations trading together purchase the one from the other, commodities of exactly the same value, their claims upon each other are, of course, equal, and the real exchange is said to be at par. If, however, the amount purchased by the one nation is greater than that purchased by the other, the real exchange will be in favour of the one and against the other to the extent of the difference between their mutual purchases. The balance is then settled by a remittance of bills, or an adequate amount of commodities, or of bullion, whichever of these means the debtor finds it most advantageous or economical to adopt, in order to discharge his liabilities. It may happen that the nominal exchange may be against a country, while the real exchange is in its favour. This is adjusted in the computed exchange, which makes allowance for the one and takes credit for the other, and thus shows the actual state or position of the exchange between any two or more countries, and is, in fact, the ultimate condition into which all differences must be resolved. It is the object of the mercantile system to create a favourable balance of payments, or in other words, a favourable *real* exchange, by giving every facility to our exports and restricting our imports. But, according to Mr. Culloch, so far from an excess of exports over imports, being any criterion of an advantageous commerce, it is quite the reverse; and the truth is, notwithstanding all that has been said to the contrary, that unless the value of the imports exceeded that of the exports, foreign trade could not be carried on.

The foreign exchanges have always a tendency to correct themselves, and their fluctuations can never for any lengthened period exceed the expense of transmitting bullion from one country to another. The transactions of the exchange brokers facilitate this tendency of the exchanges to correct themselves. They buy bills where they are cheapest, and sell them where they are dearest. Similar operations are carried on by merchants and dealers in bullion. So that while there are always circumstances which produce more or less an oscillation of the exchanges, there are at the same time operations going on to adjust and equalize them.

I shall now proceed to the second part of my subject:—

2. Colonial exchange, with a special reference to our intercourse with Australia.

A colony has been defined to be "a body of people drawn from the mother country to inhabit some distant place."

All great countries have had their colonies:—Greece, Rome, Spain, France,

Holland, Portugal, and others. The numerous colonies of Great Britain form one material element of her greatness and her power. The common advantages which every country derives from its colonies have been supposed to consist in the military force they furnish for its defence, and in the revenue they provide for the support of its civil government. The particular advantages consist partly in what arises from the colonies being subject to the dominion of the mother country, and partly from a monopoly of their trade and commerce. To a commercial country, like Great Britain, colonies are of great importance to the development and extension of her trade and commerce; her "ships, colonies, and commerce" form the bulwark of her power. But the advantages of a colony to the mother country will materially depend upon the laws which regulate our colonial policy, and the means taken to promote the extension of its trade and agriculture, "Plenty of good land and liberty to manage their own affairs in their own way," appeared to Adam Smith to be "the two great causes of the prosperity of all new colonies." Without questioning the soundness of this view, or undertaking to determine how far our policy has been conformity with it in modern times, it may, perhaps, be admitted to have held good in reference to the great prosperity of the North American colonies at the time Smith wrote. A still more rapid prosperity, but perhaps without the same liberty to manage their own affairs, has exhibited itself in some of our colonies in the Pacific at the present day. The advantages derived by Great Britain from her colonies cannot be said to be in the military force they furnish, or in the revenue they provide for the support of its civil government. They consist partly in affording an outlet for our surplus population, but chiefly in the trade and commerce which they create and promote. Those colonies appear the most prosperous where exclusive privileges of trade are abandoned, and the inhabitants are left free to carry it on from all the different ports of the mother country, and without the intervention of restrictive or oppressive regulations. This may be said to be very much the case in regard to Great Britain and her colonies at the present day. But without dwelling longer upon the abstract question of our colonial policy, upon which a great deal may no doubt be said, both for and against, I shall proceed to remark upon the principles which regulate the exchanges between Great Britain and her colonies.

What has been said with regard to the general principles of exchange with foreign countries will apply also to the exchanges with our colonies. The colonies furnish us with those productions peculiar to their different climates, and receive in exchange the manufactures and produce of the mother country. The balances owing from one to the other are adjusted in much the same manner as in the case of foreign countries. Bills perform an important part in the adjustment of colonial as well as of foreign exchange, and the precious metals, as in every other case, are the ultimate resolvers of all differences. The East India Company, from the vast extent of their mercantile and political influence in the East, have, until lately, had the entire monopoly of the exchanges of India, but these are now gradually beginning to be shared in by the banking institutions, local and colonial, in connection with that part of the world. These colonial banks, with whatever part of the world they have their correspondence, whether India, the West Indies, North America, or Australia, having their seats of government in London, are highly important institutions, not simply on account of the advantages they offer to the trade of their respective localities, but also on account of the facilities they afford to commerce as well as to private individuals for the transmission of money from the mother country to the colonies, and from the colonies to the mother country.

The most important of our colonies of the present day, at least, that upon which the popular mind seems to dwell with the greatest longing and delight, is Australia. I need hardly tell you that this is the largest island in the world.

It was discovered by the Dutch in the seventeenth century, but was scarcely known to the British Government until visited by Captain Cook in the following century. It is only about sixty-five years since it was taken possession of in the name of George III., and the first colony founded. As the vessels that carried out those first colonists, left the British shores, Lord Sydney exclaimed, with something like prophetic truth, "There goes the foundation of a mighty empire!" The first free settlers followed a pastoral life, some of its colonies were founded by public companies, and until recently, Australia was celebrated chiefly for its fine climate, extensive pasture lands, and its superior qualities of wool,—the chief exports being wool and tallow. In later years copper mines were discovered, and there are now upwards of fifty mining companies formed in the town of Adelaide alone, for working mines in different parts of the province. The most successful of these has been the Burra-Burra mine. The still more recent discoveries of gold, and its great abundance in particular districts, has given quite a new character and interest to this highly favoured colony. The commerce, I may remark, is chiefly with the mother country. Of manufactured goods, it was calculated that the import into the colony of New South Wales last year, for every man, woman, and child in the colony, was £7 per head, and the export of its staple articles was in the same manner at the rate of £8 10s. per head. The imports and exports of the colony have rapidly increased within the last eight years. In 1850 the total imports were £2,078,300, and the total exports £2,399,600. The imports of the last year exceeded those of the previous year by nearly 16 per cent., and the exports showed an increase for the same period of nearly 27 per cent. The progress of the gold discoveries since 1849, at first slow and uncertain, has now assumed an extent and importance which must exercise the most wonderful influence upon the condition and destiny of this splendid colony. The reports of the gold discoveries, treated at first like the tales of the "Arabian Nights," are now no longer matter of wonder, except in as far as the truth of one discovery excels that of another; and the questions which philosophers and statesmen delight to torment themselves with betimes are, how long will this abundance of gold continue, and what will be its effects upon the currency of the country. These are questions which you had an opportunity of discussing last winter at the reading of an excellent paper on the subject by Mr. Dalton, and therefore, I shall only remark, that the gold is described as being found "in dust and small scales, amongst sand and earth; it is mixed with decayed vegetable matter in the bottoms of brooks, ravines, and gulleys; in nuggets and quartz on the tops, and in the interior of mountains and the gentle slopes of hills, in currents of water, and deeply imbedded in creeks and rivers. It is in the iron-stone rock, where it yields 25 per cent." In short, it may almost be said, in agricultural phrase, to be "sown broad cast" over the whole face of the country.

The persons engaged in digging for gold have, many of them, the materials for cleansing and purifying it. There are also parties who occupy themselves in the still more lucrative occupation of dealing in gold. These are called gold brokers. Some of them publish periodical circulars, similar to the trade circulars published by different firms in this country. From these circulars we obtain information of the amount of gold sent to the Assay Office in the colony, and the rates of exchange in London; and other particulars regarding the progress of the gold diggings; the qualities of the metal obtained in different localities, and the quantities exported. Thus, in one circular issued at Sydney, in April last, it is stated:—"about £50,000 worth of gold has been deposited in the Assay Office, under the provisions of the bullion act, and the Bank of Australasia were still refusing to take ingots, and issue their notes upon them. An attempt had been made by the Collector of Customs to claim an import duty of 5 per cent. on the gold brought down by the *Queen of Sheba*, but it

was supposed the governor would not sanction it:—exchange on London; drafts against gold 8 per cent. discount; freight, ½ per cent."

Another circular states: "Since my last circular, the banks have made some extensive purchases, mostly it is understood, through private agents, the rates being 64s. to 64s. 6d. My sales to-day amounted to £2,873 13s. 6d; the prices obtained averaging 64s."

In a third circular I find the following remarks: "The money market continues in a very unsatisfactory condition. The banks are now generally declining to advance upon gold, and this circumstance has visibly affected the market. As an instance of the state of the exchange between this place and England, I may mention that, I had a bill of the great Rothschild's in my hands this week, and I could not get a better offer for it than 25 per cent. discount." The produce circulars of the colony also quote the freight on gold to London, as well as the rates of exchange; thus, gold ½ per cent.; exchange on London, Bank drafts 6½ per cent. discount. Private bills (with produce hypothecated) 8 per cent. discount."

The banks in Australia, as you are aware, issue notes of various denominations, and as low as £1; the use of gold, therefore, as a currency, must necessarily be limited. Yet a great deal has been said and urged in the public papers, upon the advantage of a colonial mint for the coinage of gold into sovereigns. In a colony enjoying the privilege of issuing paper notes, of the value of £1, and upwards, the advantage of a mint for sovereigns appears at least very doubtful. The gold so abundantly obtained in Australia is not required for circulation. It is simply an article of merchandise. If it is bought by the local banks, they issue their own notes or bills on London in payment. If by the gold brokers it is paid for in the same way. All that is wanted, and what indeed seems imperatively called for, is a government office of assay, to certify the quality and quantity of gold in bars and ingots. This is done, at present, partly by private individuals. One person, writing from Mount Alexander diggings, states:—"having a splendid pair of scales, I am in the constant practice of weighing and sub-dividing gold for parties, and have had as much as from 20 to 30lbs. brought by one party at a time." Now, it is a matter for consideration, whether a government office of assay, for simply stamping the quality and quantity of the gold brought in, would not meet all the requirements of the colonists, under present circumstances. By this means, greater facilities would be afforded to purchasers and dealers in bullion, and the gold finders would be able to have their stores reduced into a more marketable as well as more portable form. A select committee of the legislature of Sydney, reported on December last, upon this very subject. Their opinion was, that the establishment of an assay office did not appear to be an important acquisition; but that the colony would be a decided gainer by the establishment of a local branch of the Royal Mint. But, from the report of the directors of South Australian Banking Company to their shareholders, in June last, it appears, that the governor of Australia had given his sanction to an act for the establishment of an assay office for the conversion of auriferous metal into ingots, which would be a legal tender at 71s. per ounce, and would be exchangeable for notes of the local banks, at that rate. This measure, although intended to be but temporary, the court thought would be of great advantage to the bank and colony generally, for South Australia had already received, to a large extent, gold from the neighbouring colonies, as an article of commerce, and it was thought that measure could not fail to cause its regular influx, which must prove of considerable profit to the bank. The Bank of Australasia, in their last report, make no allusion to this measure, but only to the general increase of business, and of profit, both at Sydney and Maitland, as well as at Melbourne and Geelong, arising from the great increase of population, extension of trade, and general prosperity of the colonies.

The gold obtained at these diggings does not enter into the circulation of the colony. It is, as already remarked, merely an article of merchandise. From a recent address of the Chairman of the Melbourne Chamber of Commerce, it appears that the colonial banks had been buying up gold, with a view of substituting it for their large reserves of corn, and thereby so far relieving, with advantage to themselves no doubt, the pressure upon the public from the inadequate supply of money. The price of this gold is, like other things, more or less variable according to the variations of supply and demand. If the demand increases beyond the supply, the price will advance, but if the supply greatly exceeds the demand, the price will fall. If numerous banks were formed in the colony with the privilege of trading in gold, the competition of the banks in the gold market would have a tendency to increase its value. At the present time the purchasing of gold is a profitable business, but the time may come when from increased scarcity, or the greater amount of labour required to procure it, the profits of the gold dealers will not be so large. In that case the banks would look less to the gold diggings, and depend more for their profits upon the general prosperity and industry of the colonists, through the medium of trade and agriculture. From the vast quantities of gold, however, which have already been obtained with comparative facility, and the undiminished supplies that are constantly pouring in, all speculation as to the result must at present be vague and unsatisfactory. From a statement in the *Banker's Magazine* of the present month, copied from the *Globe* newspaper, it is estimated that the total amount of gold raised in Australia up to April last, was £4,800,000, of which £3,748,000 had been imported into this country. The total aggregate amount of gold imported into this country from California and Australia, is estimated in the same paper at £7,253,395, while the gold coin withdrawn from the Bank of England during the first nine months of the present year, amounted to £6,143,000, or to within £1,070,395 of the total aggregate imported from these two countries. This great export of coin, has arisen partly from the demands of emigrants, partly from shipments of sovereigns to Australia, in payment of the gold raised there, and partly to the Cape and other colonial settlements.

The principal exports from Australia to Europe, like those from many other parts of the world, are not spread equally over the whole year, but press more heavily at particular seasons. Thus the influx of wool from November to February occasions a demand for money against that produce, numerous bills are drawn against the anticipated proceeds in Europe, and offered to the banks and private parties for discount, to an extent which often occasions a considerable depression. The introduction of a new article of export to a very large amount in the shape of gold, has, of course, added very much to the difficulties attending the operations of exchange; and I am indebted to the chairman of the Melbourne Chamber of Commerce for the best explanation I can give you on this subject.

The value of gold exported in two months only, namely, in December and January last, was nearly as great as that of the whole annual export of general produce from the colony previously. The enlarged application to the banks produced the usual effects in all such cases. The exchange on London increased to 10 per cent. upon drafts at thirty day's sight, and the rate of advance on gold fell from 55*s.* and 50*s.* per ounce to 40*s.* Much of the pressure was withdrawn under this change, and parties preferred to await returns from London, for their gold consigned there, to accepting advances of money under such disadvantages, or to force sales at prices which this rate of exchange had reduced.

I must now conclude by informing you how the exportation of gold is managed. It is transported from the colony to England, from whence it is returned back chiefly in the form of coin. The risk, expense, and delay are

lost to the colony; and this operation, with all its attendant agencies, has been estimated to occasion an average loss of not less than 20 per cent. It is this average loss of 20 per cent. upon sending the gold to London in dust, nuggets, and bars, and receiving it back in coin, that has partly suggested the idea of a colonial mint. But with an assay office properly constituted, and banks privileged to issue notes and drafts upon the deposit of bullion, the necessity of incurring so heavy a loss upon the remittance of gold to London might, I think, be in a great measure obviated.

The circumstance that has caused so great a derangement of the exchanges in Australia is, as you must readily perceive, the sudden and unexampled increase of gold. Had the enormous gold production been only gradual, it would have been speedily counterbalanced by a proportionate importation of necessaries, conveniences, and luxuries. But, under the present state of affairs, the rapid accumulation of gold, and the vast number of emigrants pouring into these colonies, considerable time must elapse before a proper adjustment can be brought about, and an adequate amount of imports counterbalance the great plethora of what at present may not inappropriately be called superfluous wealth.

Mr. GILBART, after paying a high compliment to the ability displayed by the writer of the paper just read, observed that, with regard to the establishment of the assay office in Australia, it was quite clear that the colony could not require a mint to coin all the gold found, for the purpose of their own currency. All they wanted was an assay office to show what the quality of the gold was worth, so as to facilitate its sale at the colonial banks. The absence of any such test at present might account for what they sometimes heard of the great bargains made by parties who bought large quantities of gold at about 60*s.* an ounce, which they sold again at 77*s.* 9*d.* The reason why the Australian banks would not buy gold was, because they could only pay for it in their own notes, which notes they were compelled by their charter to meet in sovereigns, and not having those sovereigns, they were unable to issue the notes. This also would account for and justify the export of specie to the colony. In all our colonies the banks were the medium of exchange, but here when a merchant wanted foreign bills he had to go into the market and buy them, and when he had them he must go there and sell them at the rate of the present time. In the case of domestic bills there was no such necessity, these being negotiated by the private banks, besides which there was no general market for them as there was for foreign bills. Ninety years ago there was as much difference in the exchange between this country and Scotland as there now was between it and France, in consequence of the difference in the value of the currency. This was found to be very injurious to Scotland, and the result was the establishment of a banking connection, by means of which bills were drawn by the one country on the other, at forty days. A similar proceeding subsequently took place between Ireland and England from the same cause, and in this way the fluctuations in the rate of exchange as between these countries was prevented. The great object in regard to foreign exchange of course was to prevent as far as possible these fluctuations, and it had been supposed that by an arrangement between the Bank of England and the continental banks they might be met or modified to a certain extent, without altering our domestic currency. The Act of 1844 seemed to have exonerated the Bank of England from any responsibility, for by that Act the banking department was entirely separated from the department of issuing notes. He should like to have the opinion of some of the gentlemen present connected with the colonial banks, especially those of North America, whether or not the banks there took the question of exchange in their own hands, in regard to regulating it by their issues, and he should also be glad to know what was considered the par of exchange.

Mr. ROGERS considered the par of exchange, as between any two countries, was the equal value of gold in the currency of each country; for, however the rate of exchange might fluctuate, it was gold that restored the balance. He agreed generally with the paper of Mr. Bell, and considered that in all commercial difficulties it was better that parliament should not interfere, but that they should be left to right themselves. He objected to the circulating medium being entirely metallic, considering that that would deprive us of an advantage over foreign nations which we otherwise possessed. What we required was a paper currency judiciously based upon gold. He believed the reason why we did not send out to Australia so much gold as we received, was that considerable sums were sent here from Australia for investment in land and other securities. This was no evil, but rather an advantage, and if the whole difference went back in the shape of our manufactures we should still derive benefit in the increased employment of labour.

Mr. ATTWOOD, of the British North American Bank, explained that the exchanges between the North American colonies and the mother country were conducted through the medium of the banks, and for their own safety these banks must have regard to the rate of exchange between the provinces and the mother country, and more especially between the provinces and the United States. At the present time the value attaching to British coin varied in the different provinces, but it was in all fixed by law. In Nova Scotia the value of the British sovereign was 25*s*., and in Canada it was 24*s*. 4*d*. This gave a permanent premium of 9½ per cent., in the one case, and 12 in the other. Latterly, the American eagle, the value of which was fixed by law at £2 10*s*., had exercised a considerable influence—greater than the English sovereign; in the ordinary course of business the eagle and the half-eagle supplying a sufficiency of coinage for the wants of the colony, and tending materially to its prosperity. In reference to the relative exports and imports of gold, he should like to know whether the imports from Australia by New York, in the shape of coin, had been taken into account.

Mr. LOVELL replied they were not included.

Mr. ATTWOOD thought so; and that, he said, would account for the extraordinary increase of gold in the Bank coffers, over and above the difference between the imports and exports.

The CHAIRMAN believed exchange between different nations would always be regulated by the interchange of commodities between countries. The only true course was to leave those commercial operations free to themselves, to be regulated by the requirements of commerce and by commercial men, without legislative interference. He was not one of those who was alarmed at the influx of gold from Australia, as to the effect it might have on commodities, when he looked at the state of Europe, and to the fact that Russia, with 35,000,000 of people, had not sufficient metallic currency for the operations of London for one day, and when he found that, in Prussia, they had a paper currency as low as 3*s*. He believed, however, if the imports of gold continued, we should never have the per cents. below £100, unless in the event of some great commercial calamity. He was not favourable to a paper currency, except so far as it was based on bullion; but he thought gold should be regarded like any other commercial commodity, and not fixed by act of Parliament at £3 17*s*. 10½*d*. per ounce.

A vote of thanks to the chairman terminated the proceedings.

Banking and Commercial Law.

LEADING CASES ON BANKING LAW.

THE LAW RELATING TO CURRENT ACCOUNTS BETWEEN BANKERS AND THEIR CUSTOMERS, AND THE APPROPRIATION OF PAYMENTS MADE BY AND TO BANKERS.

Devaynes v. *Noble* (*Clayton's Case.*)—Merivale's Reports, vol. i., p. 585, July 1816.

Introduction.

The case of *Devaynes* v. *Noble* is split into several other cases, all of them possessing great interest to bankers. A member of a firm of bankers died, and his representatives retired from the partnership, leaving the accounts of the customers unsettled, and some years afterwards the firm became bankrupt. In this state of things the creditors of the firm sought to render the estate of the deceased member liable, and instituted the suit in question for that purpose. The points arising under the suit are reported in the case of *Devaynes* v. *Noble*, each separate point being represented by the name of some chief creditor. We have selected the point relating to the rules which are to regulate an ordinary current account between bankers and their customers. We give only the judgment, as it contains all the facts necessary to understand it. The judge was Sir William Grant, Master of the Rolls, and a high authority.

Judgment of Sir W. Grant.

Though the report following (I presume) the words of the inquiry directed by the decrees, states the Master's opinion to be, that Mr. Clayton has, by his dealings and transactions with the surviving partners, subsequent to the death of Mr. Devaynes, released his estate from the payment of the cash balance of £1,713; yet the ground of that opinion is, not that the acts done amount constructively to an exoneration of Mr. Devaynes' estate, but that the balance due at his death has been actually paid off, and, consequently, that the claim now made is an attempt to revive a debt that has once been completely extinguished.

To a certain extent it has been admitted at the bar that such would be effect of the claim made before the Master and insisted upon by the exception. To that extent it is, therefore, very properly abandoned, and all that is claimed is the sum to which the debt had been at one time reduced.

It would, indeed, be impossible to contend that after the balance, for which alone Mr. Devaynes was liable, had once been extinguished to any given amount, it would, as against his estate, be again augmented by subsequent payments made, or subsequent credit given to the surviving partners. On the part of Mr. Devaynes' representatives,

however, it is denied that any portion of the debt due at his death now remains unsatisfied. That depends on the manner in which the payments made by the house are to be considered as having been applied. In all—they have paid much more than would be sufficient to discharge the balance due at Devaynes' death, and it is only by applying the payments to subsequent debts that any part of that balance will remain unpaid.

This state of the case has given rise to much discussion as to the rules by which the application of indefinite payments is to be governed. Those rules we probably borrowed, in the first instance, from the civil law. The leading rule with regard to the option given in the first place to the debtor, and to the creditor in the second, we have taken literally from thence; but, according to that law, the election was to be made at the time of payment as well in the case of the creditor as in that of the debtor; Dig. L. 46 t. 3 Q. 1, 3. If neither applied the payment, the law made the appropriation, according to certain rules of presumption, depending on the nature of the debts, or the priority in which they were incurred. And as it was the actual intention of the debtor that would, in the first instance, have governed, so it was his presumable intention that was first resorted to as the rule by which the application was to be determined. In the absence, therefore, of any express declaration by either, the inquiry was, What application would be most beneficial to the debtor? The payment was consequently applied to the most burdensome debt—to one that carried interest rather than to that which carried none; to one secured by a penalty rather than to that which rested on a simple stipulation—and if the debts were equal, then to that which had been first contracted."—Dig. L. 46 t. 3 Q. 4.

But it has been contended that, in this respect, our courts have entirely reversed the principle of decision, and that, in the absence of express appropriation by either party, it is the presumed intention of the creditor that is to govern, or, at least, that the creditor may at any time elect "how the payments made to him shall retrospectively receive their application." There is certainly a great deal of authority for this doctrine. With some shades of distinction, it is sanctioned by the case of *Goddard* v. *Cox*, 2 Strange, 1194; by *Wilkinson* v. *Sterne*, 9 Mod., 427; by the ruling of the Lord Chief Baron, in *Newmarch* v. *Clay*, 14 Exch., 239; and by *Peters* v. *Anderson*, 5 Taunton, 596, in the Common Pleas. From these cases I should collect, that a proposition which, in one sense of it, is indisputably true—namely, that if the debtor does not apply the payment, the creditor may make the application to what debt he pleases—has been extended much beyond its original meaning, so as in general to authorise the creditor to make his election when he thinks fit, instead of confining it to the period of payment, and allowing the rules of law to operate where no express declaration is then made.

There are, however, other cases which are irreconcilable with this indefinite right of election in the creditor, and which seem, on the contrary, to imply a recognition of the civil law principle of decision.

Such are in particular the cases of *Meggott* v. *Mills*, Ld. Raymond, 287 ; and *Dowe* v. *Holdsworth*, Peake, N. P., 64. The creditor, in each of these cases, sought *ex post facto*, to apply the payment to the last debt. It was in each case held incompetent for him so to do. There are but two grounds on which these decisions could proceed—either that the application was to be made to the oldest debt, or that it was to be made to the debt which it was most for the interest of the debtor to discharge. Either way, the decision would agree with the rule of the civil law; which is, that if the debts are equal, the payment is to be applied to the first in point of time. If one be more burthensome or more penal than another, it is to it that the payment shall be first imputed. A debt on which a man could be made a bankrupt would undoubtedly fall within this rule.

The Lord Chief Justice of the Common Pleas explains the ground and reason of the case of *Dowe* v. *Holdsworth*, in precise conformity to the principle of the civil law.

The cases then, set up two conflicting rules—the presumed intention of the debtor, which, in some instances at least, is to govern, and the *ex post facto* election of the creditor, which in other instances is to prevail. I should therefore feel myself a good deal embarrassed if the general question of the creditor's right to make the application of indefinite payments were now necessarily to be determined. But I think the present case is distinguishable from any of those in which that point has been decided in the creditor's favour.

They were all cases of distinct insulated debts, between which a plain line of separation could be drawn. But this is the case of a banking account where all the sums paid in form one blended fund, the parts of which have no longer any distinct existence. Neither banker nor customer ever thinks of saying this draft is to be placed to the £500 paid in on Monday ; and this other to the account of the £500 paid in on Tuesday. There is a fund of £1,000 to draw upon and that is enough. In such a case there is no room for any other appropriation than that which arises from the order in which the receipts and payments take place, and are carried into the account. Presumably it is the sum first paid in that is first drawn out. It is the first item on the debit side of the account that is discharged or reduced by the first item on the credit side. The appropriation is made by the very act of setting the two items against each other. Upon that principle all accounts current are settled, and particularly cash accounts. When there has been a continuation of dealings, in what way can it be ascertained, whether the specific balance due on a given day has or has not been discharged, but by examining whether payments to the amount of that balance appear by the accounts to have been made ? You are not to take the accounts backwards, and strike the balance at the head instead of the foot of it. A man's banker breaks, owing him on the whole account a balance of £1,000. It would surprise me to hear the customer say—"I have been fortunate enough to draw out all that I paid in during the last four years ; but there is £1,000, which I paid in five years ago,

that I hold myself never to have drawn out, and therefore, if I can find anybody who was answerable for the debts of the banking-house, such as they stood five years ago, I have a right to say that it is that specific sum which is still due to me, and not the £1,000 that I paid in last week." This is exactly the nature of the present claim. Mr. Clayton travels back into the account till he finds a balance for which Mr. Devaynes was responsible, and then he says—'That is a sum which I have never drawn for, though standing in the centre of the account; it is to be considered as set apart and left untouched; sums above it, and below it, have been drawn out, but none of my drafts ever reached it, or affected this remnant of the balance due to me, at Mr. Devaynes' death." What boundary would there be to this method of remoulding an account? If the interest of the creditor required it, he might just as well go still further back, and arbitrarily single out any balance as it stood at any time, and say, it is the identical balance of that day which still remains due to him. Suppose there had been a former partner, who had died three years ago, before Mr. Devaynes, what would hinder Mr. Clayton from saying, "Let us see what was the balance at his death? I have a right to say it still remains due to me, and his representatives are answerable for it; for if you examine the accounts, you will find I have already had cash enough lying in the house to answer my subsequent drafts, and therefore all the payments made to me in Mr. Devaynes' lifetime, and since his death, I will now impute to the sums I have paid in during that period, the effect of which will be to leave the balance due at the death of the former partners still undischarged." I cannot think that any of the cases sanction such an extravagant claim, on the part of a creditor.

If appropriation be required, here is appropriation in the only way that the nature of the thing admits. Here are payments so placed in opposition to debts, that, on the ordinary principles on which accounts are settled, this debt is extinguished.

If the usual course of dealing was, for any reason, to be inverted, it was surely incumbent on the creditor to signify that such was his intention. He should either have said to the bankers, "Leave this balance altogether out of the running account between us," or, "always enter your payments as made on the credit of your latest receipts, so as that the oldest balance may be the last paid." Instead of this, he receives the account drawn out as one unbroken running account; he makes no objection to it; and the reports state, that the silence of the customer after the receipt of his banking account is regarded as an admission of its being correct. Both debtor and creditor must, therefore, be considered as having concurred in the appropriation.

But there is this peculiarity in the case; that it is not only by inference from the nature of the dealings and the mode of keeping the accounts that we are entitled to ascribe the drafts or payments to this balance, but there is distinct and positive evidence that Mr. Clayton considered and treated the balance as a fund out of which, notwithstanding Devaynes' death, his drafts were to continue to be paid;

for he drew, and that to a considerable extent, when there was no fund except this balance, out of which his drafts could be answered. What was there in the next draft he drew which could indicate that it was not to be paid out of the residue of the same fund, but was to be considered as drawn exclusively on the credit of money more recently paid in? No such distinction was made, nor was there anything from which it could be inferred. I should therefore say, that, on Mr. Clayton's express authority, the fund was applied in payment of his drafts, in the order in which they were presented.

But even independently of this circumstance, I am of opinion, on the grounds I have before stated, that the Master has rightly found that the payments were to be imputed to the balance due at Mr. Devaynes' death, and that such balance has, by those payments; been fully discharged.

NOTE.

Since the above case was decided, many attempts have been made to extend or qualify the rule it establishes; but it has always been treated as a binding authority, in every case involving similar facts. The reasoning contained in the judgment seems to be quite unanswerable. In the remarks we have to make we shall consider the law relating to payments to bankers under the following heads:—

1st.—*The right of the customer to appropriate a payment, and the mode of doing so.*

2nd.—*The right of the banker to appropriate a payment, and the mode of doing so.*

3rd.—*The cases in which the law will regulate the appropriation.*

1st.—*The right of the customer to appropriate a payment, and the mode of doing so.* It is settled law, that the party who makes a payment has, at the time of making it, the right to say how it shall be applied. See the above leading case, and also *Selwyn's Nisi Prius*, 130; *Chitty on Contracts*, 752, and the cases there cited. This right may be exercised by express words, or it may be presumed to have been exercised by circumstances attending the transaction. Thus, where a person paying money had, at the time of payment, made an entry in a book, stating it to be for a specific account, and at the same time showed the entry to the person receiving, this was decided to be evidence of an appropriation. *Frazer* v. *Birnie*, 8 Carrington and Payne, 704. Also where a party had demands as agent for others, and also in his own right, against another party, and caused application to be made to that party for the demands due to him as agent, and in consequence of such application the party owing paid to the other certain sums without stating on

which account, it was decided that this amounted to an appropriation of the payment to the account due to the first party as agent, and therefore that it could not be applied to the individual debt. *Shaw* v. *Picton*, 7 Dowling and Ryland, 201. Another case in which an appropriation will be presumed to have been made by the debtor is, where there are two demands, one arising from a lawful contract, and the other from an illegal one, the debtor will be presumed to have intended to pay the legal demand. *Dowe* v. *Holdsworth*, Peake's Reports, 64; *Wright* v *Laing*, 3 Barnewall and Cresswell's Reports, 165. This right to make the appropriation on the part of the debtor is confined to the time when the payment is made.

2nd.—*The right of the banker to appropriate a payment, and the mode of doing so.* In case the party paying does not, either by express words or by implication, apply the payment to a particular account at the time of making it, then the right to apply it rests with the party receiving. Therefore, where a creditor has two demands against a debtor, one of which can be enforced at law and the other cannot, the creditor may appropriate the payment to the debt which is not legally recoverable. *Cruickshanks* v. *Rose*, 1 Moody and Robinson's Reports, 100; *Philpott* v. *Jones*, 2 Adolphus and Ellis, 41. There is a distinction between a case of this kind and one where the demand is positively illegal.

The creditor's power of appropriation is not exercised by him merely by entries made in his own private books; and is not complete or lost to him until the appropriation has been communicated to the other party. *Simson* v. *Ingham*, 2 Barnewall *and Cresswell*, 65; *Williams* v. *Rawlinson*, 3 Bingham's Reports, 76.

3rd.—*The cases in which the law will regulate the appropriation.*—There is still a third class of cases in which many questions relating to bankers arise, and that consists of instances in which no express or implied appropriation has been made by either party; and circumstances have arisen to render it impossible for that right to be exercised. The law is then obliged to decide how a payment shall be applied. Probably, this class of cases might be arranged under the other two heads; but we think it convenient to distinguish them. Thus, in Clayton's case, the dispute arose after death and bankruptcy. In other cases, third parties, such as sureties or fresh partners, may have an interest in contesting the question. Clayton's case, as explained by subsequent cases, establishes that, in the absence of proof of a contrary intention, the first item on the debit side of the account is discharged or reduced by the first item on the credit side. "It was contended," said Lord Denman (in *Hen-*

niker v. *Wigg*, 1 Davison and Merivale's Reports, 171) "that an ordinary banking account in which, according to the language of Sir William Grant, 'all the sums paid in form one blended fund, the parts of which have no longer any separate existence, and that it is the first item of the debit side of the account that is discharged or reduced by the first item on the credit side.' (*Clayton's* case, and *Boddenham* v. *Purchas*, in which case the doctrine of Sir William Grant was fully adopted.) And it is presumed that, generally speaking, and with reference to a case like that which he was considering more especially, the doctrine of that eminent judge admits of no doubt." The case of *Boddenham* v. *Purchas*, referred to by Lord Denman, was as follows:—A bond was given to the several persons constituting the firm of a banking house, conditional for the repayment of the balance of an account, and of such further sums as the bankers might advance to the obligor. One of the partners died, and a new partner was taken into the firm. At that time a considerable balance was due from the obligor to the firm. Advances were afterwards made by the bankers, and payments made to them on account by the obligor; the latter was credited by the new firm with the several payments, and charged with the original debt and subsequent advances, as constituting items in one entire account, and the balance due at the time of the partner's death was considerably reduced; and that reduced balance, by order of the obligor, was transferred by the bankers to the account of another customer, who, with his assent, was charged with the then debt of the obligor. The person who was so charged having become insolvent, the surviving partners of the original firm brought their action upon the bond. It was decided that, as they had not originally treated it as a distinct account, but had blended it in the general account with other transactions, they were not at liberty so to treat it at a subsequent period; and that, having received, in different payments, a sum more than sufficient to discharge the debt due upon the bond at the time of the death of the deceased partner, the bond was to be considered as paid. Where the plaintiffs were bankers, and one of the defendants, upon opening an account with them, has borrowed of them £1,000, for which he, together with the other defendants, became bound to the plaintiffs, with a condition for repayment with interest by a certain day, and continued afterwards to pay in and draw out money upon the usual footing of a banker's account, and the first sum entered to his debit on the account was partly made up of the £1,000 to secure which the bond was given,—it was decided, upon the evidence, that it was not the intention of the parties that the first item of the debit side should be reduced by the first item of the credit side,

but that the bond should stand to secure the plaintiffs against such advances as they should, from time to time, make to the defendant. (*Henniker* v. *Wigg*, 1 Davison and Merivale, 160.) Where there are distinct demands, one against persons in partnership, and another against one only of the partners, if the money paid is money of the partners, the law will apply it to their debts, and the creditors may not apply it to the private debt of the individual. (*Thompson* v. *Brown*, Moody and Mulkin's Reports, 40).

EFFECT OF A FULL CURRENCY ON TAXATION.

(BY THE AUTHOR OF *Postulates and Data.*)

THERE seems to be an undefined expectation of relief from the too long existing pressure upon the industrial classes of this country—and among them especially upon those engaged in agriculture—as a consequence of the recent gold discoveries in California and Australia. No doubt important relief is to be looked for, but under what degree and modification of the supplies forthcoming, has yet to be proved.

That the expectation of some relief is well-founded, will appear from the concurrence of so many otherwise differing authorities, in their favourable predictions on the subject, and from the softening down of those differences which were formerly so rife between the two great opposing parties into which the nation was divided when the Monetary Act of 1819 became law, and which prevailed up to the passing of the Act of 1844. This, the last legislative measure affecting money, for the first time, gave reality to the enactment of the former year. In order to clear this important subject of ambiguity, we shall glance at the action of our monetary system.

Until the legislation of 1844, the "complement," as Sir Robert Peel called it, of the Act of 1819, there had been a succession of alleviations or suspensions of the pernicious measure so completed, such as the relief afforded in 1822 by the parliamentary provision for extending and prolonging the issue of one-pound notes by the Bank of England; again in the relief given in 1826 by a similar measure; again in 1835-6 by the issue of exchequer bills among the American merchants, and by the first action upon the circulation of joint stock banks in England; and again in 1839, when, to support our ricketty monetary system, the Bank of England was obliged to borrow two millions of specie from the Bank of France—a benefit she could not reciprocate in 1848, when she was called upon by France.

It will be obvious that all these extensions of the circulation relieved the productive classes in this country from that depression of price which, in our highly-taxed condition, is inseparable from the existence of a standard of value at the natural level, in respect of price, of the precious metals throughout the world—a standard which

must in its measure counteract, and which did, in point of fact, materially counteract, the legislative attempt to give protection to native industry by customs' duties. To instance corn: the landowner and the farmer were exposed to the odium of enjoying a partial protection, which, from the nature of things, could not be equally enjoyed by the manufacturer for the foreign market. It has been proved, however, by a learned writer on "Money" of the present day, Mr. John Taylor, that, for a period of twenty-one years, during which the monetary law of 1819 was in operation, the utmost protection enjoyed by wheat, as an example of native production, amounted to 6*s.* 8*d.* only per quarter, although our statesmen had aimed at giving a protection of full twenty shillings. And the reason of this is plain—counteracting forces were at work in our system, which public men failed to discern: we had a law of "protection" to raise prices, and a law of "money" to depress them.

These explanations may have the appearance of digression, but they will assume their proper place, when the question we desire to raise is fully developed; in the interim, we remark that it has only been in periods when money was in appearance, and, in fact, comparatively plentiful, that prices have risen to a remunerating level; or, in other words, when prosperity has prevailed. Such, however, has been the blindness of statesmen in dealing with monetary affairs, that in the Act of 1819 they framed a system which provided that, whenever such a legitimate rise in prices occurred as allowed taxation to be added to the natural or untaxed value of commodities, the standard measure of value, gold, at its fixed rate in our currency, should, by such an elevation in the price of commodities, be rendered the cheapest article for export to other countries, and thus be taken away by foreign merchants, to the inevitable derangement of our circulating medium; hence arose the well-remembered, and, by commercial men, the deeply-deplored panics of 1822, 1825, and 1839, and the unparalleled monetary convulsion of 1847, which was greatly aggravated, if not produced, by the Act of 1844.

The impracticable character of the Act of 1819, notwithstanding the various alleviations we have described, was most fully exposed by the late Sir Robert Peel himself, in the explanations he made on introducing the monetary measure of 1844. After admitting that there had been a succession of unexampled panics between the year 1819 and the period at which he addressed the house, the right honourable baronet proceeded to render the legislation which, by means of monetary contraction, had been so fruitful of panics, still more stringent; he sternly limited the employment of labour and capital in this country to the quantity of one foreign metal, gold, that could by any sacrifice in the price of our own products be attracted to our shores. To such stringency was our monetary system reduced, that in 1846 it was impossible to find money with which to transfer to the Accountant-General the total sum actually paid up, under the provisions of parliament, by the shareholders in railways. Sir Robert Peel, on being applied to, on this occasion, for a relaxation, is under-

stood to have refused his sanction, although he very soon afterwards witnessed a suspension of the Act of 1844, amidst a fearful wreck of many of our commercial class.

The suspension of the Act of 1844 was followed, it will be remembered, by committees of inquiry in both the houses of parliament into the causes of "the commercial distress" of 1847. The report made by the Lords, traced that distress to the "complement" Act; and a similar conclusion was only averted, in the Commons, by the adroitness of the then Chancellor of the Exchequer, Sir Charles Wood, who, in the accidental absence of two or three of the committee who were known to be adverse to his views and those of the government, carried a report decidedly at variance with the greater part of the evidence that had been recorded.

The panics were ascribed by many to an unduly extended circulation of paper money, while others attributed them to inevitable cycles of distress, having their corresponding cycles of prosperity. We would rather ascribe them to those sudden checks given to trade and production generally, by the diminution of discounts on the part of the Bank of England, and of other banks, whenever their directors have seen the gold departing from the country on account of a rise in prices towards a remunerating level, produced, as before observed, by the just addition of taxation to natural value, that is to say, to the point of prosperity. This is a condition which can alone be sustained, in our highly-taxed state, by a circulating medium not convertible into the precious metals at the price of the world, but by one in which those metals are exchangeable at their market price, and are used, as they were in this country between the years 1797 and 1819, in the character of tokens concurrently with a conventional or paper money authorised by the state.

The fact is, that while our taxation continues of its present nature and extent,—being in the proportion of fully two-thirds levied upon the producing classes—permanent prosperity can only be secured by a representative money, which can become commensurate with the elevation in price of the taxed commodities to be interchanged; and in this respect it would be conventional, on the principle propounded by the great Aristotle.

The condition, then, of prosperity in this country appears to be a fulness of monetary circulation, in its character, representative, rather than intrinsically valuable; and that prosperity is nothing more nor less than a remunerating level of price among the producing classes, whether labourers or capitalists. Such a change is likely in a degree to be brought about by extraordinary means, namely, by the rapid influx of gold, if it be procured by our merchants at a lower scale of cost to the country than the scale at which silver stands in the currency of the world; in that case, only will it alleviate the injustice of the new and far more stringent standard of value legislatively adopted in the year 1816, and rendered operative by the Act of 1819. The gold coinage will thus become representative tokens, deriving their value from the impress of the mint, and will operate as symbolic

money—will in fact bring us practically to the little shilling, against which the bullion organs so loudly exclaimed in days that are past. Already we hear notes of congratulation from those very bullionists, of alleviation to the industrious classes by some seven and a half per cent., and are directed to the fact, that the national creditor, by the imports of the precious metal, gold, in fifteen years more, may be mulcted of the increase obtained by his class in the fifty per cent. or more, added to his principal under the legislation of 1816 and 1819.

But this is not our way of meeting this most deeply interesting crisis, as will appear in a future article ; no more grave subject than this can claim the consideration of the legislature, since, second only to the influence of our most holy faith, no social object so deeply involves the welfare and happiness of the great mass of the population of our country as a just, sound, and sufficient medium for distribution of the products of industry.

THE EAST INDIA COMPANY'S HYPOTHECATION SYSTEM.

THE commercial evidence given before the parliamentary committees on the East India Company's charter is very important, and the following extracts from the evidence of the Secretary of the East India Company on the hypothecation system, so loudly condemned by the commercial world, will be read with interest. The evidence was taken before the Committee of the House of Commons ; and although Mr. Melvill evidently supports the directors in every way he can, the information he gives is exceedingly interesting. The examination on the hypothecation question was as follows :—

Will you explain the hypothecation system?—It is a system of government advances in India to merchants who wish to purchase goods for export in England. The government advance the funds, and the person to whom the advance is made, gives a bill upon his agent, and delivers over to the government the bill of lading of the cargo, as collateral security.

Has not that been very much complained of by English merchants?—It has occasionally, but by no means uniformly, been complained of. At the commencement of the new system, the India merchants desired that the company should make advances; there was then very little capital in India, and the merchants were not prepared to enter, as they could wish, into the trade upon their own resources. Afterwards, the merchants, when the system was in operation, complained of it, and were ready, as soon as there was disappointment in the sales in this country, to ascribe this disappointment and loss to the interference of the government in the market of India by hypothecation; but when money again became scarce, the merchants indicated their wish that the government would resume their advances, and advances were made accordingly.

Is that within the last two years?—Within the last three or four years.

Is not that system complained of very much, as furnishing artificial capital to parties who have not sufficient of their own to carry on business, and thereby interfering with the operation of real capitalists?—That is one ground of complaint; we have reason to believe that there is as much hypothecation

going forward now as there was when the government hypothecated, but it is by capital sent out by private individuals from this country.

That system is now suspended?—The policy of the court of directors has been to depend, as far as possible, upon supplies by means of bills upon India, as being the most simple course, and that which apparently interferes less with trade than any other; they have gradually reduced the amount to be hypothecated, and during the last two years they have completely discontinued it.

Has any inconvenience arisen from that suspension of the hypothecation system in the way of remittance?—None.

Have the court of directors discontinued it from an objection to the principle of hypothecation, or from finding a more expedient and better course of obtaining remittances?—They have found the remittance by bills the simpler course, and so long as it affords to them a sufficiency of funds, so long they will, I apprehend, adhere to it as their only mode of remittance.

Was there not great objection entertained, from time to time, to the appearance in the market of the government of India unexpectedly disturbing the ordinary mercantile operations of the country?—Complaints of that nature have been made by official reports of the government of India to the court of directors.

Is the justice of that complaint at all admitted?—I think not.

You think that the disturbing effects caused by the appearance of parties with funds which they are under the necessity of remitting at certain unexpected periods, is not seriously felt as an inconvenience in the money markets of India?—I do not think the objection is admitted to be well founded; but the court of directors always desire in these remittances to take the merchants along with them, and, therefore, although the objection may not be well founded, they yield to it whenever the interest and convenience of the public service permit.

Did not the government of India, at one time, in 1843 or 1844, feel the objection to the system of remittances of money by hypothecation of goods so strongly, and did not they feel so satisfied that the government here would approve of those objections, that they issued a general notice to the merchants, stating that they had represented this objection, and that, after a certain period, no such remittances would take place?—They did so; the government issued such a notification, and the court of directors found fault with them for so doing.

Have the court of directors an apprehension of being left too much at the mercy of the merchants, if they depend solely upon bills from England?—I have occasionally heard an apprehension expressed that the merchants might combine; but I doubt whether it is well founded.

Is care taken here, in drawing those bills upon the different governments in India, not to draw in very large sums at the same period, but to diffuse the drafts as to enable the treasury there to meet the drafts without difficulty?—The only limitation put upon the demand for bills in this country, is by raising the exchange; and whenever the supply comes in too abundantly, either more than is wanted here, or more than the governments of India can conveniently meet, the rate of exchange is raised.

Have you any recollection of bills to the amount of more than a million being drawn in a month upon the government of India?—Yes, I believe that to have been the case upon one occasion.

When the rate of exchange has varied, what steps are taken?—It is never varied without the concurrence of the board of commissioners.

Are the committee to understand, therefore, that the alterations of the rate of exchange are made upon political principles, and that the rate of exchange is not left to the natural operation of the amount of bills at different times in

the market, as compared with the demand for those bills?—The rate of exchange is regulated entirely by the necessities of the home treasury, and the convenience of the Indian treasury.

The rate of exchange with regard to India is not left, like the rate in other countries, to depend simply upon mercantile transactions?—The government fix their rate of exchange.

Does not the rate of exchange for commercial transactions follow the rate of exchange in the government transactions?—The government transactions are so large, that I think they must have an influence on the mercantile rate The mercantile rate of exchange for bills on India is generally lower than ours.

Must not some amount of disturbance in commercial transactions necessarily arise from the necessity of annually remitting a tribute of £3,900,000 from India?—I have always considered it impossible for the government to effect such an amount of remittance without, in some degree, interfering with trade.

Is the rate of exchange regulated by the amount of your bills and the amount of commercial bills in circulation, as compared with the demand for them; or is it in addition or collaterally to that, regulated by any arbitrium on the part of the government or the Indian department in conjunction with the Chancellor of the Exchequer?—I think it must be regulated in a great measure by the knowledge which the merchants possess of the amount of the East India Company's demand. Once in every year that demand is notified to the merchants; the merchants, therefore, know how much in the whole year we are going to draw, and I think they must regulate the demand for bills accordingly, and the rate of exchange is affected by that demand.

Is it a pretty constant quantity?—Yes: though there have been occasional variations of considerable amount.

Have you any means of naturally regulating the rate of exchange, except by limiting or increasing the quantity of bills that you put into the market?—None.

Then are your rates of exchange regulated by the ordinary principles which regulate commercial exchanges, or are they regulated by the interposition of any arbitrium on the part of the government?—By no arbitrium of the government.

What is the nature of the communication to which you have referred, which takes place between the authorities of the East India Company and the Chancellor of the Exchequer, as bearing on the question of exchange?—When the demand for our bills becomes excessive, the necessity is apparent of raising the exchange to check it, and then we go to the board and represent the circumstances to them, and obtain their concurrence.

That is only obtaining the concurrence of the government for an operation, in relation to the exchange, which would be the natural effect of the state of things at the time, if you were a great commercial house dealing in exchanges?—Exactly so.

What is, at the present time, the balance at the Bank in the name of the East India Company?—I think, at this moment, the cash balance is about £700,000.

Is not that much lower than it used to be formerly?—It has varied; but, independently of the cash balance, the court have larger available means in this country, and they lend a portion of the cash balance, so as to make it productive.

What are your available resources here?—I think, in addition to the cash balance, we have a sum of nearly £585,000 out on loan; we have £1,000,000 of exchequer bills, and I think we have an investment in stock to the extent of £1,000,000; it has been thought only prudent, with such large demands as are continually made upon the home treasury, and with the liability to expensive operations in India, that the company should possess a large available fund in this country.

You have about a year's expenditure in hand?—Not quite.

In abandoning the hypothecation in China, you sustained a considerable loss?—We ceased to derive a considerable profit.

The system of hypothecation was a source of gain to the company?—Yes.

Was the system of remittance by bills also a source of gain?—There was a gain upon remittance by hypothecation, as compared with that by bills on India.

Were the losses considerable by hypothecation?—Very trifling, considering the magnitude of the transactions.

Were there any establishment expenses which you got rid of by abandoning the system of hypothecation?—Not in England.

In China there were?—Yes, the China agency was abolished.

In which direction is the current of bullion now moving; into India or out of India?—For some time past it has been flowing into India.

Is it not the fact, that there is a net import into India of bullion, almost every year, to the amount of about £1,000,000?—That is the case.

Where does that import principally come from?—I think principally from China; occasionally, when the exchange is very high, bullion goes from this country; large sums have so gone during the last year and the present.

Both gold and silver?—Both gold and silver, but principally silver, the price of which has, however, been very high.

THE STATISTICS OF THE BANK OF BOMBAY.

In our last number we published the resolutions agreed to at a meeting of the proprietors of this bank, with reference to an application to government for an alteration in the terms of their charter. Refering to that article, we now beg to annex some interesting official statistics, showing the progress of the bank, received by the last mails from India:—

Abstract Statement of the Annual Average Operations of the Bank of Bombay, from the commencement of business to the 30th June, 1852.

Year.	Deposits average.	Circulation average.	Liabilities average.	Invested in governmt. securities average.	Employed in banking operation average.	Rate per cent. on paid up capital of profits on banking operations.			Cash balance average.	Average rate per cent. of cash to liabilities.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	A.	P.	Rs.	
1840	15,02,110	11,75,840	26,77,950	38,19,240	8,36,375	1	4	6	37,68,445	140·72
1841	12,90,750	19,90,833	32,81,583	41,75,510	29,41,614	2	5	7	18,90,667	57·61
1842	11,60,677	20,34,350	31,95,027	22,44,580	44,45,690	3	1	6	18,99,284	59·44
1843	35,19,815	38,71,920	73,91,735	27,29,080	35,92,830	2	8	8	47,46,589	64·21
1844	31,01,336	42,58,580	73,59,916	59,40,931	28,19,112	2	0	0	35,77,783	48·61
1845	21,64,339	38,06,080	59,70,419	55,93,516	32,04,914	2	3	6	23,08,693	38·66
1846	19,37,546	35,23,954	54,61,500	47,89,833	32,29,834	3	11	6	25,65,883	46·98
1847	19,13,713	40,39,803	59,53,516	44,16,416	38,87,511	4	13	2	28,69,916	48·20
1848	20,27,246	43,36,837	63,64,083	46,15,500	34,85,083	3	14	11	33,84,925	53·18
1849	20,94,223	45,57,447	66,51,670	41,42,751	36,64,820	2	9	0	33,55,500	50·04
1850	20,43,812	45,75,114	66,18,926	36,69,525	42,28,412	4	11	6	35,41,560	53·52
1851	27,10,538	33,37,595	60,48,133	32,00,716	35,17,115	3	11	0	44,51,668	73·60
1852	24,57,280	40,58,744	65,16,024	31,93,225	40,48,715	3	2	0	45,47,496	69·02
	2,79,23,385	4,55,67,097	7,34,90,482	5,25,30,823	4,38,72,025	40	0	10	4,29,38,319	803·79
Average	21,47,952	3,505,161	56,53,114	40,40,832	33.74,771	3	1	3	33,02,947	61·83

STATEMENT showing the NET PROFIT realised by the Bank from 1841 to 1851, both inclusive, and the rate of Dividend paid upon Capital of Rs.52,25,000, also what rate of Dividend would have been paid had the Capital been only one-half, or Rs.26,12,500.

Year.	Net profit per annum on paid-up capital of Rs. 52,25,000.	Rate of dividend paid.	Deduct interest on one-half the capital proposed to be returned.	Net profit per annum on reduced capital of Rs.26,12,500.	Rate per ct. per annum.	Surplus profits per annum.
1841	2,53,778	5	1,04,500 4 p. ct.	1,49,278	5½	5,590
1842	3,60,595	7	1,03,625 5 p. ct.	2,29,970	8½	7,908
1843	3,61,512	7	1,04,500 4 p. ct.	2,57,012	9½	8,825
1844	3,92,711	7	1,04,500 „	2,88,211	11	836
1845	3,85,516	7	1,04,500 „	2,81,016	10½	6,704
1846	4,16,117	7	1,04,500 „	3,11,617	11½	11,180
1847	4,11,210	8	1,04,500 „	3,06,710	11½	6,273
1848	3,89,388	8 / 7	1,04,500 „	2,74,888	10½	576
1849	3,01,814	6	1,04,500 „	2,97,314	11	9,939
1850	3,86,507	6	1,04,500 „	2,82,007	10½	7,695
1851	3,18,375	6	1,04,500 „	2,13,875	8	4,875
	39,77,523	73½	11,48,625 4 p. ct.	28,91,898	108	70,401
Average	3,61,593	6 13/22	1,04,420	2,62,899	9 8/11	

STATEMENT showing the *highest* and *lowest* amount of Notes in Circulation in each year from the commencement of the Bank in 1840 to this date.

Years.	Date.	Highest amount in circulation.	Date.	Lowest amount in circulation.
		Rs.		
1840	December 11	23,29,465	April 15	Commenced business.
				Rs.
1841	September 11	34,29,810	May 29	11,09,335
1842	December 4	33,81,575	June 19	12,28,510
1843	December 30	63,54,530	April 17	30,12,595
1844	January 30	59,72,710	October 20	30,94,335
1845	October 11	49,55,410	August 7	30,42,825
1846	October 17	47,50,985	August 15	25,84,135
1847	November 21	51,77,050	June 27	28,05,300
1848	August 29	58,82,700	December 26	20,61,850
1849	November 10	52,02,680	January 6	24,34,855
1850	November 3	55,09,210	March 31	35,11,425
1851	December 15	51,57,840	May 12	19,96,070
1852	August 27	58,31,245	May 28	36,11,005
	Average	49,18,093	Average	25,41,020

The following is an analysis of the proprietors of the bank stock :—

	Rs.
Europeans :—	
60 resident in India holding stock	7,15,000
100 non-resident	28,16,000
	35,31,000
103 Parsees	11,53,000
22 Hindoos	1,12,000
2 Mahomedans	34,000
9 Native Christians	38,000
	13,37,000
The right hon. the Governor in council	3,00,000
The Agra and United Service Bank	33,000
The Oriental Bank Corporation	24,000
Total Rs.	52,25,000

EVILS OF THE EAST INDIA COMPANY'S INTERFERENCE WITH THE RATES OF EXCHANGE.

We quote the following remarks from the *Bombay Gazette* and (Calcutta) *Englishman*. They so completely expose the evils of the present system of regulating the exchanges with India adopted by the East India Company, that we need add nothing in condemnation of the system they denounce.

On the 10th of July the East India Company suddenly dropped their rate of exchange one penny or about four per cent. Consequently, we find it reported that between that day and the departure of the mail they negotiated no less than £783,648 14*s.* 8*d.*, on Bengal, and £82,694 11*s.* 10*d.*, on Madras. They also lowered the Bombay exchange one penny, and sold bills amounting to £46,693 8*s.* 2*d.* on that presidency, the total in the fortnight, being £906,936 14*s.* 8*d.* The previous drafts of the half-year from the 7th of January to the 7th July amounted to £1,327,722 1*s.* 1*d.* This is an accelerated rate of purchase of at least eight to one in the interval between the two July mails, an unaccountable increase upon the ordinary principles which regulate commercial transactions. But we find that on the 24th, just as the mail was starting, the East India Company again raised their rate to 2*s.* by an equally sudden jump of a penny. Putting that and that together the affair becomes intelligible. Let it be granted that the plan of operations was accidentally communicated to certain parties, for it never can be supposed that so immaculate a body as the East India Directors purposely divulged it, and it is easy to understand, that with abundance of money in the market and a clear gain of four per cent. before them, the knowing ones would purchase largely, till at last the very extent of their purchases afforded a reasonable pretext for raising the exchange to the former rate. Five hundred thousand pounds so laid out, *would give twenty thousand pounds clear profit*, a sum which would help to pay sundry election expenses, very needful at the moment. The Court of Directors must not be offended if a harsh construction is thus put

upon an operation which cannot otherwise be rationally accounted for. Formerly, when advances were made upon goods in Calcutta, the same plan was adopted. A penny up or a penny down, was the usual move, and though every man of business here could have named the individuals who benefitted thereby, it required years of remonstrance to obtain amendment. A private merchant in London having bills to sell, if he could not dispose of them at 2*s.* would try one-eighth lower and so on, and if the demand suddenly increased, he would raise his terms from day to day, as he found buyers. Not so the Company, personal interests do not call for similar watchfulness, but the

The East India Company requires some three millions a year, which, as remittances from this country are given up, must be drawn for. There is only one way of doing this satisfactorily; that is, by open biddings, from day to day, at the India House. There could then be no jobbing, no advantage to any man beyond what activity, priority of information, and capital give in all other reverse. The Bengal Treasury pays some four lakhs additional, but what does that signify, it all falls upon poor territory.

markets. The mischief of the present plan is not merely that somebody gets an unfair profit, but that uncertainty is thrown over all mercantile operations connected with this country. No merchant can calculate on operations which are apparently guided by favouritism or caprice. On the contrary, if the Company's negotiations were based upon ordinary commercial principles, merchants could estimate their effects upon the exchanges with the utmost precision, and regulate their own transactions conformably."

We observe the writer of the City articles, as we suppose they must be called, in the *Economist* newspaper (31st July), writing on this subject, says:—"A little surprise has been occasioned by the conduct of the directors of the East India Company, who have rather suddenly raised the rate of their bills on India. It was at 2*s.* the rupee; and when lowered to 1*s.* 11*d.*, about three weeks ago, a demand was made on the company for bills to the amount of upwards of £900,000. The company then discovered that it had fixed the rate too low, and suddenly at the beginning of this week raised it to its former level."

The feeling of surprise said by this writer to have been entertained on London 'Change, is converted into one of indignation in India; and the same feeling must be prevalent among the exporters to India resident in England, who do not profit by such tricks as these. The great export trade now carried on to India, is so principally on account of manufacturers who only receive returns for their goods placed in India, after the realisation of proceeds here; and the effect of this recent operation of these tricksty directors of the East India Company, having only been to place a crore of rupees in India for their use and that of their capitalist friends in London, at four per cent. less than there was any *public* need for; and the rate of exchange, India upon England, having thereupon fallen four per cent., as a matter of course, it follows that the manufacturers received for their Indian consignments, accounted for by last mail, four per cent. less than they had a right to reckon upon. This makes trading so much more uncertain and so much more expensive for India—a clear grievance for the people of the country to protest against, and those of England will join them in doing so, as it is only tricksty directors and London city jobbers, that gain by operations of that sort. Honest traders and honest people are disconcerted, and lose by it.

The proposal of the *Englishman* to have the court of directors' bills held open to offer from day to day in London, is most reasonable, and meets with our entire and unqualified approval."

EXPORTS AND IMPORTS TO 10th OCTOBER, 1852.

THE Board of Trade returns for the month ending the 10th of October were issued this morning, and furnish striking evidence of the unprecedented activity of business that has lately prevailed. As compared with the corresponding month of 1851, they show an increase in the declared value of our exportations of £1,035,298, which has been diffused, almost without exception, through every branch of industry, in fair proportion. Cotton, linen, silk, and woollen manufacturers have all largely participated in the augmentation, while as regards other articles, it has, as usual, been most remarkable in haberdashery. The following table shows the exact increase or decrease in each item:

DECLARED VALUE OF EXPORTATIONS.

Month ending Oct. 10.	1851.	1852.	Increase.	Decrease.
	£	£	£	£
Alkali—viz. Soda	41,059	36,985	—	4,074
Beer and Ale	31,820	49,410	17,590	—
Butter	23,333	35,157	11,824	—
Candles	7,290	6,555	—	735
Cheese	3,403	6,448	3,045	—
Coals and Culm	134,948	158,996	24,048	—
Cordage and Cables	13,142	16,184	3,042	—
Cotton manufactures	2,074,937	2,399,646	324,709	—
Cotton yarn	629,901	653,910	24,009	—
Earthenware	111,882	121,828	9,946	—
Fish	84,026	88,138	4,112	—
Glass manufactures	29,754	39,650	9,896	—
Haberdashery and Millinery	145,137	215,763	60,626	—
Hardwares and Cutlery	286,346	303,779	17,433	—
Leather	57,373	91,931	34,558	—
Linen Manufactures	406,367	434,981	28,614	—
Linen yarn	83,589	115,587	31,998	—
Machinery	169,915	186,728	16,813	—
Metals	797,812	964,182	166,370	—
Oil and Seeds	22,863	36,286	13,423	—
Painters' colours, &c.	17,851	23,150	5,299	—
Salt	27,487	32,363	4,876	—
Silk manufactures	91,131	114,862	23,731	—
Silk, thrown	4,623	25,027	20,404	—
Silk, twist and yarn	14,878	23,990	9,112	—
Soap	15,526	22,885	7,359	—
Stationery	37,883	46,263	8,380	—
Sugar, refined	38,192	30,744	—	7,448
Wool, sheep or lamb's	49,186	42,666	—	6,520
Woollen manufactures	712,740	901,090	188,350	—
Woollen yarn	182,600	167,108	—	15,492
Total.	6,346,994	7,382,292		

The aggregate value of our exports during the first nine

months of the year has been £54,391,438, against £53,504,978 in the like period of 1851, showing an increase of £886,460, which has occurred in the following order:

Month ending	Increase. £.	Decrease. £.
February 5	3,911	—
March 5	613,274	—
April 5	—	564,781
May 5	—	112,079
June 5	—	25,760
July 5	—	459,026
August 5	170,965	—
September 5	224,658	—
October 10	1,035,298	—

As compared with the same period of 1850, there has been an increase £4,105,036.

The following are the comparative imports and exports of raw material, showing again a large increase in silk, and in every article except tallow:

Month ending Oct. 10.	Imported.		Exported.	
	1851.	1852.	1851.	1852.
Flax, cwt.	150,556	188,775	—	—
Hemp, cwt.	183,511	221,020	—	—
Raw silk, lb.	241,535	575,926	53,244	60,070
Cotton, cwt.	269,823	296,527	190,333	99,807
Wool, lb.	7,454,737	7,806,614	370,454	514,555
Tallow, cwt.	145,375	91,021	—	—

Of silk manufactures the totals stand thus:

Year ending.	Imported.		Home consumption.	
	1851.	1852.	1851.	1852.
Silk, manufactures of Europe, lb.	69,753	77,530	67,848	75,956
Ditto, of India, pieces	14,133	74,967	12,706	13,411

The quantities of imported articles taken into consumption have likewise been satisfactory. Coffee, tea and sugar, fruits and spices, all show an increase. Wine likewise is on the favourable side as regards the present month, although, notwithstanding the prosperity of all classes, it again shows a diminution for the year. Spirits exhibit an increase both for the month and year. A great falling off in the quantity of flour imported gives in some degree a favourable indication of the comparative results

of our last harvest, although shipments from foreign ports were considerably retarded during the month by a scarcity of freight.

Subjoined are the quantities of provisions, &c., imported and taken for home consumption:

Month ending Oct. 10.	Imported.		Home Consumption.	
	1851.	1852.	1851.	1852.
Grain, wheat, quarters....	300,280	315,504	300,280	315,654
Grain of other descriptions, quarters.....	201,217	233,586	201,217	234,936
Indian corn, quarters	193,211	192,863	193,211	192,863
Flour and meal, cwt.	625,071	298,563	635,071	298,563
Provisions.— Bacon, pork, lard, &c., cwt.	31,509	21,270	Free.	Free.
Butter and Cheese, cwt. ..	63,652	52,942	63,698	56,048
Animals, No.....	60,431	60,361	Free.	Free.
Eggs, No.....	9,194,938	7,175,076	9,191,698	7,193,610
Cocoa, lb.....	382,262	324,185	341,940	333,228
Coffee, British, lb.	8,121,363	6,733,895	2,492,410	2,427,760
Ditto, foreign, lb.....	1,445,955	395,007	490,670	764,656
Total coffee	9,567,318	7,128,902	2,983,080	3,192,416
Sugar—				
West India, cwt.	318,141	315,761	299,999	434,909
Mauritius, cwt.....	75,041	49,078	72,299	93,843
East India, cwt.	71,391	93,250	98,811	135,605
Foreign, cwt.....	166,775	108,636	150,124	81,438
Total sugar	631,348	566,725	621,233	745,795
Tea, lb.....	2,688,803	3,072,372	5,311,655	5,496,224
Rice, cwt.....	60,342	151,618	32,086	42,922
Spirits, galls.....	565,147	953,465	476,414	487,777
Wines, galls.....	539,515	227,918	651,500	684,000
Opium, lb.....	14,340	23,863	2,987	7,672
Tobacco, lb.	699,226	2,608,242	2,771,356	2,777,991
Fruits.—Currants, figs, and raisins, cwt.	86,899	107,495	67,358	82,270
Lemons and oranges, chests.....	3,152	2,715	3,303	3,024
Spices, lbs.....	548,993	1,222,744	409,835	498,207
Ditto, cwt.....	1,131	2,128	318	446

The importations of other articles during the month show a large increase generally in dyes and dyeing stuffs, and in oils of of all descriptions. In hides there has been a decrease, and in glass manufactures a continued falling off in all kinds, except window-glass. As regards metals, there has been an increase in copper and a decrease in iron and tin, and in timber there has been a decrease both of imports and consumption.

PROPOSED DECIMAL COINAGE.

The Liverpool Chamber of Commerce have adopted the following suggestions for a decimal coinage:—

Report of the Special Committee on Decimal Currency to the Council of the Liverpool Chamber of Commerce.

The committee on the above subject beg to report to the council that they have given full consideration to the various letters and papers referred to them; and they are of opinion that the introduction of a decimal system for accounts and currency would be of much advantage to the community at large. Several plans for accomplishing this object have been brought under notice, but your committee consider that, in carrying out the proposed change, a system should be adopted which will the least interfere with the present arangements and values.

Among these, and the most feasible presented to the committee, are two by members of the council. By one it is proposed to retain the present sovereign as the integer of account, substituting for the shilling the new florin, just issued, as a tenth part; and using the farthing instead of pence, making that coin to be termed more correctly in future "cents," current as 100 to the florin, and 1,000 to the pound. Thus, without altering the mode of stating accounts, and with but a slight change in value (and that in the copper coins and fourpenny pieces only), a complete decimal system will be attained. Our accounts, therefore, will stand thus—pounds, florins, and cents, and the relative value of coin will be

A sovereign, equal to	1,000	cents.
Half-sovereign .. „	500	„
A crown ..... „	250	„
Half-crown..... „	125	„
A florin ..... „	100	„ or 1-10th of a sovereign.
A shilling ..... „	50	„
Sixpence..... „	25	„
Fourpence ..... „	16⅔	„
Threepence .... „	12½	„
A penny..... „	5	„
A farthing or cent.„	1	„ or 1-100th of a florin and 1-1000th of a pound.

The change of making the sovereign equal to 1,000 cents. will necessarily alter the denomination of the present copper coins and the fourpenny pieces to a slight extent, and our present pennies and fourpenny pieces might be called in, the former to be replaced by a new coin of the proportionate value now proposed. A great additional advantage in this plan would be that the existing habits and customs of the people would not be disturbed further than is absolutely necessary to the adoption of a decimal system.

The other plan is, that accounts should be kept in Alberts or half-sovereigns, as the principal coin; and pence—making 100 pence equal to one Albert—but requiring an alteration in the value of the penny. This being done, however, all the other coins would bear a decimal relation to each other. This proposition your committee consider very feasible, but they are of opinion that it would involve greater alterations than the one above detailed.

Your committee, therefore, beg to report to the council, that in any change to be made in our currency, the first of the above plans is the one most likely to accomplish the object of introducing a decimal system without interfering to any great extent with the existing modes of account and values of coins. And they recommend that the subject should be brought under the notice of the President of the Board of Trade, the Chancellor of the Exchequer, the

Chairman of the Board of Inland Revenue, and the Governor of the Bank of England, for which purpose they beg to submit the draft of a letter; they also consider it desirable that this report should be printed, and copies forwarded to the principal Government Offices and Chambers of Commerce, and other bodies and persons interested in the subject.

Communications.

To the Editor of the Bankers' Magazine.

OBJECTIONS TO LIMITED RESPONSIBILITY OF JOINT-STOCK BANK SHAREHOLDERS.

Sir,—In your last number there is a letter by "A Country Bank Manager," on which I beg to offer a few remarks.

The writer says, "The joint-stock proprietary is undergoing a continued process of degeneracy," and for this evil he suggests as a remedy, a limitation of the liability of shareholders.

I believe there is some truth in the degeneracy he speaks of, but the degeneracy is quite partial, and not general as he appears to think, and is the offspring not of "unlimited responsibility," but of mismanagement.

Unlimited responsibility does not seem to deter purchasers from giving high prices for the shares of several of the London banks, merely because these banks arewell managed; whilst at the same time it gives to others (those who deposit with them) that guarantee which on every principle of justice or equity they are fairly entitled to. Do away with unlimited responsibility, and you will induce speculation in the shares of the degenerate proprietaries, raising them to a fictitious value, and thereby deceiving the public who do business with them. Unlimited responsibility is as much a moral obligation on public companies as on private companies, or individuals; the legislature therefore would do wrong were they to sanction this new principle of *limited* responsibility, as it is not defensible either on the ground of expediency or of morals.

In seeking to improve the joint-stock bank system, I would do so, not by limiting the responsibility of the shareholders, but by increasing the responsibility of the directors; by making these last (the directors) liable *before* the other shareholders for any amount of loss beyond the amount specified in the deed of settlement for winding up the books. Every shareholder virtually consents to pay his proportion of the loss contemplated in the deed, but as he neither virtually nor actually consents to pay more, those who incur more without his consent ought to be made to pay that more. I think such a regulation would induce caution, and infuse vigour in places where these qualities are much wanted, thereby checking the "degeneracy" alluded to.

But perhaps a more practicable improvement would be for existing banks to do spontaneously what future banks must do legally, viz., appoint auditors to examine their accounts; the well managed banks would have nothing to fear in adopting this improvement, and the ill-managed ones would be stopped in their career of mis-management. Let the leading London banks, and one or two of the country ones introduce auditing of accounts, and in a short time we shall hear no more of limited responsibility.

A MANAGER.

NEGOTIABILITY OF CHEQUES STOPPED PAYMENT. LIABILITY OF DRAWER.

Sir,—I shall esteem it a favor of some of your readers giving their opinion on a subject which has occurred here. Our friends, ——, and Co. have a bank

also at S., where we have a sub-branch. At the last fair there, our customer, Mr B. bought of a dealer, two horses, on the faith of a warranty given in the presence of a third party, and gives his cheque upon us. He finds that evening, the horses are not according to warranty, and immediately requests us to refuse payment. In the course of clearance the same day the cheque is presented to us by —— and Co., and not paid. It appears that the dealer to whom the cheque was payable calls into *their* S. bank, and they to oblige him, a stranger, cash *our* customer's cheque, charging him a commission.

Now, from whom should —— and Co. recover, our customer. Mr. B., or the dealer to whom they gave cash?

They place the matter in their solicitors' hands, who sues our customer, informing him that he has taken counsel's opinion, and it supports him in recovering from Mr. B. the amount of cheque paid by ——, and Co. to an unknown third party.

Yours,

29th October, 1852. A READER.

[We think ——, and Co. can clearly recover the amount of the cheque from the drawer. To hold otherwise would entirely destroy the negociability of cheques. The drawer must sue the dealer upon the breach of warranty. If the cheque had remained in the hands of the dealer, the drawer could successfully resist payment, but ——, and Co. are bona fide holders, and can recover. The law is thus stated in *Shaw on Cheques*, page 36:—"The drawer of a cheque "will not be liable if the cheque is given for a consideration which subse- "quently fails, *unless the holder has taken it without any knowledge of that* " *circumstance, and has also given value for it.*"—Ed. B.M.]

INDIAN BILLS DRAWN UNDER CREDITS GRANTED.—LIABILITY OF GRANTOR.—AS TO BILLS DRAWN UNDER LETTERS OF CREDIT.

CANTON, 8th September, 1852.

SIR,—You are doubtless aware, that, with the object of providing funds for the purchase of produce in the eastern markets, a large amount of bills are drawn under credits granted, in Great Britain and elsewhere, by joint-stock banks, and private bankers. As it has been questioned whether the holder of a bill drawn under one of these credits, can legally force the grantor of the credit, to accept the bill, you will confer a benefit upon the mercantile community of this place, who deal largely in such papers, by making public what the actual state of the law is in reference thereto. It has been contended that the grantor of the credit is responsible for damages to the person whom he authorizes to draw, or to whom he gives the credit, and to no one else; and that if the position of the letter, when the bills are presented for acceptance, should be that of a debtor to the amount of the credit, the former would be free from any claim for damages arising from his non-acceptance of the bills. The holder of the bills would have to look to such parties as, under any circumstances, would be liable. Should such be the law, the sooner the form of credit is altered, so as to carry out the original intention of such a document, the better for all parties: the intention being that the bill should be looked upon as equivalent to an acceptance.

Another point connected with bill operations has been stated here, namely:—That the drawer of a bill under a letter of credit, who although not signing as agent, yet states on the face of the bill that it is so drawn, is absolved from liability if he draw it to the order of a third person, but that his liability attaches if he draw it to his *own order*, and indorses it—the latter operation changing his position from that of an agent to that of principal. Thus a drawer's liability would not attach to a bill of the following form, namely:—

Canton,

Six months after sight, &c., &c,,
pay to order of A, B, and Co., the sum of
value received, which place to account of Messrs. C D and Co., as per your letter of credit of

E. F. and Co.

To I. O. U., London.

but that the liability would attach if "ourselves" were inserted in place of A. B. and Co.

I annex copy of a credit similar to those issued by the Scotch banks.

I am, Sir, your obedient servant,

W. A.

No. £500.

First of Exchange.

To Messrs. E. F. and Co.,
Canton. Bank of April, 1852.

I hereby engage to accept and to pay at maturity the first presented bill of the set of exchange, of which the annexed is the first, to be drawn by you on the Bank of on or before the 1st January, 1853, for five hundred pounds, at ninety days sight, provided this letter of credit as annexed to such bill be presented therewith, and delivered to me on acceptance thereof.

For the Bank of

Manager.

ACCOMMODATION BILLS DISCOUNTED BY BANKERS.

SIR,—I shall feel much obliged by an opinion on the following questions:—Suppose a customer of a bank present a bonâ fide bill for discount, drawn in the usual form, and indorsed by another party as surety for the acceptor, and in case of the failure of the acceptor, could the bank sue the last endorser, having discounted the bill for the drawer; and could the drawer have recourse against the indorser? Also, should an accommodation bill, drawn in the usual form of a business bill, be discounted by the bank for the acceptor? would this exonerate the drawer? Also, is there any advantage in the way of proving the consideration (the difficulty I apprehend in the foregoing cases) by having the bill drawn up in the form of a joint and several promissory note, yet unaccompanied by a letter signed by the parties in explanation of the object for which the note was given?

I am Sir, your obedient servant,

A CASHIER.

The Bank, Nov. 15th, 1852.

DEPOSITS BY A MINOR.—CHARGE FOR COMMISSION ON CUSTOMERS' ACCOUNTS.

London, 8th Oct., 1852.

SIR,—A, aged 17 years, deposits with a bank £500, and two years afterwards, when for the first time the banker becomes aware that his client is a minor, demands repayment of his deposit. Qy.? Is the banker compelled by law to repay the £500 when called on by A, whilst a minor, or must he refuse payment until A is 21 years of age?

T. C. has a current account with a banker, and being desirous of overdrawing at times, and to induce the banker to grant him that accommodation, he

deposits title deeds of *real estate*, as collateral security for the due repayment of any sums which may be due by him to his banker.

The banker continues to honor the cheques of T. C., receives his gold, silver, country notes, cheques on country bankers. &c., &c., retires his acceptances in London and elsewhere,—in short, in addition to making cash advances to T. C., the banker acts as the agent of T. C.

At the end of each half-year, T. C. is charged interest at the rate of 5 per cent., per annum, for the use of the capital supplied him, and also 2s. 6d. on every £100 drawn out or debited to his account.

Qy.? Is this charge of 2s. 6d. per cent. in addition to 5 per cent. interest, legal, or does the banker who makes these charges subject himself to the penalties of the Usury Law?

I am satisfied in my own mind that these charges are legal, and that the charge of 2s. 6d., 5s., or 7s. 6d. (as the case may be) per cent. *commission* in addition to *interest*, would, in the event of the charge being submitted to a jury, be looked on and treated as a charge for work done; but as I have been lately informed by a barrister that such charge, where *real property* is held as a security, is *usurious*, I am anxious for yomr opinion on this subject. I trust some of your many talented correspondents will reply to this communication.

I remain, Sir, yours respectfully,

T. C.

BANKER'S LICENSE.

Darlington 9th Nov., 1852.

Sir,—I shall be much obliged by your informing me if a party who acts as treasurer to four or five railway companies, &c., several manufacturing firms, by discounting their bills, and allowing them to draw *cheques* upon him, receiving money on deposits, and drawing on a London banker, is required to take out a banker's license.

I am, Sir, your obedient servant,

JUSTITIA.

BILL STAMP REQUIRED ON BILL PAYABLE ON DEMAND.

12*th Nov.*, 1852.

Sir,—I venture to trouble you with the following questions, which I have no doubt your large experience will enable you to answer readily and with decision:—Messrs. Smith and Brown give a note of hand to their bankers which runs thus:—

"12th Nov., 1852.

"On demand we jointly and severally promise to pay
"or order, one thousand pounds, with interest at the rate of five pounds per cent. per annum from the date hereof, for value received. John Smith.
£1000. Thomas Brown."

Messrs. Smith and Brown are shopkeepers, and have establishments not only in but in two other towns. I am desirous of knowing whether each and all of these concerns are liable for the above note, and in case of Bankruptcy, and the possibility of *separate* fiats being issued, whether the said bill could be proved under each? It should be observed that the note does not bear the *trade signature* of "*Smith and Brown*," but is signed by the partners *individually*. Is this important?

And further, upon what value stamp should the said note be drawn, 8s. 6d. or 12s. 6d.? As the note is credited to their account, and remains for an *indefinite period* and *bears interest*, is the lower denomination sufficient in

case of an action, to prevent the sacrifice of interest accruing thereto, or in anywise endanger the principal through lapse of time, without reference, of course, to the statute of limitations?

An early reply would much oblige, as the queries have reference to actual practice.

I am Sir, your obedient servant,

J. H.

FOREIGN BILLS.

SIR,—I shall feel obliged by your opinion of the following in your next monthly journal:—A, residing at Genoa, wishes to borrow from B, of Gateshead, £100, and accordingly forwards to B, his promissory note on demand, dated at Genoa, for which B returns a banker's draft on London. Should the note be drawn upon an English bill stamp?

From yours respectfully,

A BANKER'S CLERK.

Darlington, 9th Nov., 1852.

[NOTE.—Several of the above queries arrived too late in the month for us to answer them fully. They shall be replied to next month, when perhaps some of our readers may favor us with their opinion on the points in question.—Ed. B. M.]

Prices of Joint-Stock Bank Shares.

EDINBURGH (*Mr. Thomas Miller*), 25th November, 1852.—Bank of Scotland, £190 10s.; British Linen Company, £212; Caledonian Banking Company, £3 15s.; City of Glasgow Banking Company, £10 18s.; Clydesdale Banking Company, £12 15s.; Commercial Bank of Scotland, £182; Eastern Bank, £9 15s.; Edinburgh and Glasgow Bank, £4 8s.; Exchange Bank of Scotland, 9s.; National Bank of Scotland, £16 4s.; North of Scotland Bank, £3 4s.; Royal Bank of Scotland, £136 10s.; Union Bank of Scotland, £93 5s.; Western Bank of Scotland, £74.

HULL (*Messrs. T. W. Flint and Co.*), 25th Nov., Hull Banking Company, 16, 16½; Yorkshire Banking Company, 6⅝, 6¾.

DUBLIN (*Messrs. J. J. Stephens & Son*), 25th Nov. Bank of Ireland stock, 220, 220¼, 220½, 220¾, 221, 221½, 222½; Hibernian Bank, 32, 32¼, 32¾, 33, 33¾; National Bank of Ireland, 19½, 19⅝, 20, 20⅜, 20½, 20⅝, 20, 20⅛, 20¼, Royal Bank of Ireland, 15⅞, 15⅝, 15½, 15¼, 15⅓.

LEEDS (*Messrs. Greenland, Brothers*), 25th November.—Leeds Banking Company, £15, 22½, 23; Yorkshire Banking Company, £4 4s., 6½, 6¾.

Notes of the Month.

BANKING INSTITUTE—The next meeting will be held on the 12th Dec., when Mr. Shaw will read a paper on "the law of partnership."

THE COMMERCIAL CREDIT MUTUAL ASSURANCE SOCIETY.—A very useful company has been formed under this title. Its objects are:

"To reimburse to the assured, commercial losses sustained by them in consequence of non-payment by debtors who are traders.

"To give to the assured immediate assistance in recovering debts due to them, and generally, on their behalf, to save time, trouble and expense, in the investigation or winding up of the estates of debtors, whether bankrupts or otherwise, and to effect the speedy payment of dividends.

"To make to the assured advances, where losses have occurred, with a view to prevent immediate embarrassment, or ultimate failure.

"To afford information to the assured respecting the commercial stability of traders, to whom they may propose to give credit."

A company of this kind appears to have been long required by commercial men, and will probably meet with extensive support when its objects, &c., become better known.

THE TRANSFER BOOK at the Bank of England will close and open as follows:—

	SHUT.	OPEN.
3 per cent. consols - - -	10th Dec., 1852	18th Jan., 1853
New 5 per cent. - - - -	10th ,,	18th ,,
3 per cent. 1726 - - -	10th ,,	18th ,,
Annuities, Jan. 1860 - -	10th ,,	18th ,,
Ditto ,, 1880 - -	10th ,,	18th ,,
India stock - - - - -	2nd ,,	13th ,,
South Sea stock - - - -	10th ,,	10th ,,
Ditto new annuities - -	10th ,,	10th ,,
Ditto 3 per cent. 1751 -	10th ,,	10th ,,

ASSURANCE OF GOLD.—We have heard that the underwriters of Lloyd's having insured the incoming gold to the extent of £6,000,000, decline to go further.

RAILWAY AMALGAMATIONS.—THEIR EFFECTS ON THE WORKING STOCKS.—We hear that some of the companies who are seeking amalgamations, which it is to be hoped the legislature will never sanction, have been letting their stocks down and not keeping them up by timely repairs. The object is to show larger profits, that they may, if the amalgamations are permitted, obtain better terms. This is a dangerous game, for if the legislature should reject the amalgamations, they will be thrown to an awful expense to put their stocks in repair, and then the cost will have to be spread over a number of years—a nice plan that.—*Herapath*.

SUMMARY OF THE RAILWAY MARKET.

The great and increasing yield of the Californian and Australian gold regions continues to exercise a beneficial influence on the market for railway shares. Estimates of present and future supplies, and conjectures as to the immediate and proximate effects of so large an addition to the stock of gold, have created a very confident feeling that the present easy condition of the money market may be expected to become permanent, and that the prices of all sound investments must gradually advance. Hence we have seen during the past twelve months a gradual and general appreciation of all descriptions of property, with a marked advance in the price of Railway Shares.

Apart, however, from the impulse afforded from this adventitious and extraneous circumstance, there are other causes in the enormous increase and growth of the national wealth, which lead to the conviction that the rate of in-

terest on Capital tends gradually and surely downwards. It has been estimated that the increased value of landed property alone, in the British Isles, during the last three or four years, is far more than double the whole amount of gold extracted since the first discovery of its existence in California; and if to this we add the increased amount and value of house, ship, and manufacturing property, and the profits derived during the same period from trade, we shall discover an infinitely more potent and more certain cause of enhanced prices than in the 30 or 40 millions which may have been extracted from the mines of California and Australia. In place of the legal rate of 5 per cent., it is very probable that 4 per cent., may come to be considered a fair ordinary and sufficient rate, and this becomes the more probable when it is remembered that £4 will now go quite as far, or farther, towards providing the necessaries and luxuries of life than £5, twenty years ago.

Already the abundance of Capital seeking employment, and the increasing difficulty of finding safe and profitable investment, has established a rate of interest varying from 3¾ to 4 per cent. on guaranteed railway stock, and as the demand continues to exceed the supply, it is probable that a still lower rate must be submitted to.

The London and North Western is at present busily engaged in forming alliances, and endeavouring, in some degree, to systematise the net-work of lines with which it is surrounded. Fortified by the alliance of the Midland, and secure in the possession of 200 separate stations, we believe that this Company has now little to fear from outward attacks, and that this Stock may consequently be considered to have seen its worst.

The Great Western company have recently been compelled to reduce the fares throughout their lines; a step which, although *forced* upon them, we believe will eventually prove more to their advantage than any measure the directors are themselves capable of devising. Pending the result of this, however, and during the winter—not a favourable time for commencing low fares—the traffic will probably suffer.

The Midland, now deriving full benefit from the conversion of their preference, and with the prospect of a closer alliance with the North Western, may be expected fully to maintain its present price.

The receipts of the Lancashire and Yorkshire continue to exhibit a large increase, owing to the great activity prevailing in the manufacturing districts.

The resources of the South Eastern are developing themselves in an extraordinary manner, and fully justify the expectation of a greatly enhanced price. The rapid extension of the French and Continental Lines—the majority of which may be looked upon as in some sort feeders to the Dover Line—and the increasing amount of communication between London and Paris, are guarantees of the permanence of this traffic, whilst peace continues. There are few lines possessing at this moment such bright prospects for the future.

The Brighton maintains its position as the safest and most trustworthy investment, although latterly the traffic has been scarcely so good. It is proposed to amalgamate this Line with the South Western, but as the terms have not as yet been considered, it would be premature to form any opinion beyond the general desirability of union, and the advantage which would accrue from a terminus at Waterloo Bridge.

The Great Northern—the youngest of the trunk lines of railway—is still but partially developed, but promises to fulfil the most sanguine expectations. The A Half Shares in this undertaking are at a very low price, and will probably be sought after as a deferred investment.

The Eastern Counties, in addition to its large receipts, has the prospect, in two years time, of a release from the incubus of the Norfolk line—a contingency which gives great value to their Shares.

The receipts of the Manchester, Sheffield and Lincolnshire continue to in-

crease, and as the position of this line will enable it to command favourable terms from its more powerful neighbours, we do not anticipate any decline from the present low price of this Stock.

The Shares of the East Anglian are selling at a very low price, and are probably the most advantageous purchase in the market at the present moment—presenting the great advantages of merely nominal risk, with the almost certainty of *very great benefit*.

Speculative purchases have recently forced up the price of Caledonian Stock to £64, a price certainly not justified by the present condition of the undertaking.

ROBERT ALLSOP.

1, Royal Exchange Buildings, London.

Monetary Intelligence.

REVIEW OF THE MONEY MARKET FOR THE MONTH OF NOVEMBER, 1852.

THERE has been rather more activity in nearly all the markets during the last few weeks than prevailed during October. The activity, however, has rather displayed itself in an extension of transactions than in any very marked increase of price. There have been no important exceptions, however, to this remark. In the produce markets several articles have been made the objects of extensive and bold speculation. There has been little if any abatement in the production of new companies for railways, mines, steam navigation, foreign canals, and the like; and the preparations for the next session of Parliament, as regards railway bills, we imagine to be on a greater scale than for any session since 1845. In France, the speculative fever appears to exceed the intensity of our own; and a collapse cannot be very distant in Paris.

In the discount market the rates have become a little higher, and bills are not readily converted at less than 2 per cent., or thereabouts.

In the *railway market* there has been a revival of business and brisk prices.

	1852. 27th Oct.	1852. 27th Nov.
Newcastle and Berwick	70	76
York and North Midland	53	62
Eastern Counties	12½	13
London and North Western	120	126
London and South Western	89	95
Brighton	104	108
Midland	77½	79
Great Western	96	96
Great Northern	81	85

THE CORN TRADE.

THE *Gazette* returns for England and Wales have been—

Weeks ended, 1852.	Qrs. sold.	Weekly average. s. d.	Six Weeks' average. s. d.	Duty. s. d.	Corresponding Six Weeks Last Year. s. d.
Oct. 23	117,026	.. 38 8	.. 38 11	.. 1 0	.. 36 4
„ 30	104,436	.. 39 2	.. 38 9	.. 1 0	.. 36 2
Nov. 6	104,810	.. 39 5	.. 38 9	.. 1 0	.. 36 1
„ 13	109,376	.. 39 11	.. 38 11	.. 1 0	.. 36 2
„ 20	96,792	.. 40 0	.. 39 2	.. 1 0	.. 36 5

The importations since the harvest of 1851 have been:—

	Wheat. Qrs.	Other Grain. Qrs.	Total. Qrs.
Sixty-three weeks ended 13th Oct, 1852 ..	3,483,282	2,674,664	6,157,946
Five weeks ended 17th Nov., 1852	442,447	189,141	631,588
	3,925,729	2,863,805	6,789,534

And the *weekly average* results have been—

Sixty-three weeks ended 13th Oct., 1852 ..	55,000	42,000	97,000
Five weeks ended 17th Nov., 1852	90,000	37,000	127,000
More ..	35,000		30,000
Less ..		5,000	

It will be seen that the price of wheat has risen; and the market is firm. The destructive floods of the present month will contribute to sustain prices; and it is hardly likely that there will be any serious decline during the winter. The probability is rather the other way.

STATE OF TRADE.

The reports from all the industrial districts are on the whole favourable, and we hope that, so far, there is not much rash overtrading.

BANK OF ENGLAND.

THE *Gazette* returns have been:—

LIABILITIES.

Date. 1852.	Circulation.	Public Deposits.	Private Deposits.	Total Deposits.	Rest.	Total Liabilities.
Oct. 23 ..	24·60 ..	4·45 ..	13·67 ..	18·12 ..	3·10 ..	45·82
„ 30 ..	25·28 ..	4·66 ..	12·80 ..	17·46 ..	3·10 ..	45·85
Nov. 6 ..	24·84 ..	5·04 ..	12·65 ..	17·69 ..	3·13 ..	45·66
„ 13 ..	24·71 ..	5·97 ..	12·37 ..	18·34 ..	3·13 ..	46·18
„ 20 ..	24·13 ..	6·66 ..	12·41 ..	19·07 ..	3·13 ..	46·33

ASSETS.

Date. 1852.	Public Securities.	Private Securities.	Bullion in Banking Department.	Bullion in Issue Department.	Total Bullion.	Total Assets.
Oct. 23 ..	13·95 ..	10·62 ..	12·08 ..	9·16 ..	21·24 ..	45·82
„ 30 ..	13·95 ..	10·74 ..	11·34 ..	9·82 ..	21·16 ..	45·85
Nov. 9 ..	13·95 ..	10·81 ..	11·54 ..	9·36 ..	20·90 ..	45·66
„ 13 ..	13·96 ..	10·94 ..	12·07 ..	9·20 ..	21·27 ..	46·18
„ 20 ..	13·96 ..	11·06 ..	12·65 ..	8·67 ..	21·32 ..	46·33

The *bullion* remains without material change, and the same remark applies to the other departments of the Bank.

NOTICES TO CORRESPONDENTS.

A JUNIOR CLERK.—The appointments are made by the East India directors.
E. J. (Rugby).—The two banks referred to are quite distinct establishments.
B. D.—Many thanks to our friend for his useful communication.

THE ENGLISH FUNDS.—*Daily Prices from 28th October, 1852, to 26th November, 1852, inclusive.*

	28	29	30	1	2	3	4	5	6	8	9	10	11	12	13	15	16	17	18	19	20	22	23	24	25	26
Bank Stock (div. 7 per Ct.)	224	224½	223½		224½	223½	223⅝	223	224	223½	223	223	223½	223⅝	..	..	221	221½		222¼	223	223¼	223	223	223	223
3 per Ct. Red. Anns.	99⅜	99⅜	99⅝		99⅝	99⅝	99⅝	99⅝	99⅝	99⅝	99⅝	99⅝	99⅝	99⅝	99⅝	99⅝	99⅝	99⅝		100	100⅛	100⅜	100⅜	100⅜	100⅜	100⅛
3 per cent. Consols Anns.	100⅛	100⅛	100⅛		100⅞	100⅛	100⅛	100⅛	100⅛	100⅛	100⅛	100⅛	100⅛	100⅛	100⅛	100⅛	100⅛	100⅛		100⅜	100⅜	100⅛	101⅛	101⅛	101⅛	101⅛
3 per cent. Anns. 1726	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..
3½ per cent. Anns.	103½	103⅜	103⅝		103⅛	103⅛	103½	103¼	103⅜	103⅛	103⅜	103	103¼	103	102⅞	102⅞	102⅞	103		103	103¼	103⅛	103⅜	103⅜	103⅜	103⅛
New 5 per cent. Anns.	..	125	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..
Long Anns. Jan. 5, 1860	6⅞	6⅞	..		6⅞	..	6⅞	6⅞	..	..	..	6⅞	6⅞	6⅝	..	..	6⅝	6⅝		..	6⅞	6¼	6¼	..	6¼	6¼
Ditto 30 years, Oct. 10, 1859	6⅜	..	6⅜		..	6⅜	..	..	6⅜	..	..	..	6⅜	..	..	..	6⅜	6⅜		..	..	..	..	..	6⅜	..
Ditto 30 years, Jan. 5, 1860	..	6⅜	..		..	6⅜	..	6⅜	..	6⅜	..	6⅜	..	6⅜	..	..	..	..		..	..	..	..	..	..	..
Ditto 30 years, Jan. 5, 1880	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..
India Stock (div. 10½ per cent.)	273	275	275		..	..	274	274½	..	275	275	275½	..	274	276½	..	..	..		277	275½	..	275	277	275	..
Ditto Bonds £1000 (div. 3 p. c.)	87sp	87sp	..		87sp	87sp	85sp	84sp	84sp	84sp	86sp	83sp	83sp	..	83sp	85sp	..	..		..	..	80sp	..	..	83sp	..
Ditto, under £500	87sp	84sp	84sp		..	..	85sp	..	..	84sp	87sp	..	87sp	..	..	..	84sp	81sp		..	..	80sp	83sp	..	83sp	83sp
South Sea Stock (div. 3½ p. c.)	..	..	..		112	111½	..	..	..	..	..	..	..	..	111	..	..	..		..	..	..	..	..	..	..
Do. Old Anns. (div. 3 p. c.)	..	..	..		99½	..	..	98⅞	..	..	99¼	..	..	..	..	..	98⅞	99¼		..	..	..	..	100	..	..
Do. new Anns. (div. 3 p. c.)	..	..	..		..	..	100	99⅜	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	100⅜	100⅜
3 per cent. Anns. 1751	..	..	..		..	..	..	99⅜	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..
Bank Stock for op. 9th Dec.	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..
3p. Cent. Cons. for ac. 11th Nov	100⅜	..	100⅜		100⅜	100⅜	100⅜	100⅛	..	100⅛	100⅛	100⅛	..	..	..	..	..	..		..	..	..	..	..	..	..
Do. for ac. 9th December	..	..	..		..	..	..	..	..	..	..	..	100⅛	100⅛	100⅛	100⅛	100⅛	100⅜		100⅜	100⅜	101⅛	100⅛	101⅛	101⅛	101⅛
India Stock for ac. 9th Dec.	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..
Ex. Bills £1000, 1½d.	75sp	78sp	75sp		78sp	75sp	78sp	..	74sp	73sp	76sp	76sp	75sp	75sp	73sp	72sp	73sp	73sp		73sp	72sp	72sp	69sp	..	70sp	73sp
Ditto. £500 do.	..	..	..		78sp	..	..	..	77sp	73sp	76sp	..	75sp	75sp	75sp	72sp	73sp	..		..	..	..	..	72sp	70sp	..
Ditto. Small do.	..	75sp	..		78sp	..	..	..	..	73sp	76sp	..	..	75sp	75sp	72sp	73sp	70sp		..	..	..	..	72sp	70sp	..

HOLIDAY.

The Funeral of Field Marshal His Grace the Duke of Wellington.

JOINT STOCK BANKS.

	£	sh., £	0 pd	London Latest Prices £
Australasia	£40	0		£57
British North American	50	0		—
Commercial of London	100	20	0	29
Colonial	100	25	0	16
London and Westminster	100	20	0	33½
London Joint Stock	50	10	0	19½
Oriental Bank	25	25	0	39
Provincial of Ireland	100	25	0	46½
Ditto, New	10	10	0	—
National of Ireland	50	22	10	—
National Provincial of England	100	35	0	46
Ditto, New	20	10	0	—
South Australian	25	25	0	—
Union of Australia	25	25	0	50
Union of London	50	10	0	17
London and County	50	20	0	24

FOREIGN STOCKS *(29th Nov.)*

Brazilian Bonds, 5 per Cent.	102½
Chilian Bonds, 6 per Cent.	—
Danish 5 per Cent.	106½
Mexican 3 per Cent.,	25
Peruvian Bonds, 6 per Cent.	104
Portuguese Bonds, 4 per Cent.	38½
Russian Bonds, 1822, 5 per Cent. in £ Ster.	121
Ditto, 4½ per cent.	104⅜
Spanish Bonds 5 per C. div. from Nov. 1840	—
Ditto, Passive Bonds	6½
Ditto, Deferred	—
Ditto, 3 per Cent. Spanish Bonds	51½
(Dividends on the above payable in London.)	
Austrian Scrip, 5 per Cent.	82
Belgian Bonds, 4½ per Cent.	99⅝
Dutch 2½ per Cent.	65
Ditto 4 per Cent. Loan	97⅛
French 4½ per Cent., at Paris, Oct. 26	106f. 50c.
Ditto 3 per Cent., ditto	82f. 10c.

RAILWAY SHARES.

Company.	Paid up. £		Prices Oct. 27	Prices Nov. 29
Caledonian	50	..	53	68
Eastern Counties	20	..	12½	13⅜
Great Northern	24	..	82	87
Great Western	100	..	95½	97⅛
London and Blackwall	13½	..	8¼	9¼
London and Brighton	100	..	105½	109½
——— North-West.	100	..	119½	121
——— South-West.	100	..	90	97
Midland	100	..	77½	81
North British	25	..	38	44
South-Eastern	100	stock	79½	83½
York, Newcsle. & Berwick	25	..	69½	77½
York & North Midland	50	..	53	64½

The closing prices of the day are quoted.

Bank of England Weekly Returns.

Account, pursuant to the Act 7th and 8th of Victoria, cap. 32, for the Weeks ending as follows.

ISSUE DEPARTMENT.

	1852. Oct. 23rd.	1852. Oct. 30th.	1852. Nov. 6th.	1852 Nov. 13th
	£	£	£	£
Notes issued.....	34,736,230	34,767,270	34,592,735	34,699,275
Government debt.....	11,015,100	11,015,100	11,015,100	11,015,100
Other securities	2,984,900	2,984,900	2,984,900	2,984,900
Gold coin and bullion	20,717,076	20,748,116	20,573,581	20,680,121
Silver bullion	19,154	19,154	19,154	19,154
	34,736,230	34,767,270	34,592,735	34,699,275

BANKING DEPARTMENT.

	1852. Oct. 23rd.	1852. Oct. 30th.	1852. Nov. 6th.	1852 Nov. 13th.
	£	£	£	£
Proprietors' capital.....	14,553,000	14,553,000	14,553,000	14,553.000
Rest	3,098,897	3,100,802	3,125,075	3,127,453
Public deposits (including Exchequer, Savings' Banks, Commissioners of National Debt, and Dividend Accounts)	4,449,346	4,664,600	5,040,143	5,973,230
Other deposits.....	13,670,230	12,801,729	12,653,673	12,367,099
Seven day and other bills	1,442,560	1,471,650	1,485,294	1,507,161
	37,214,033	36,591,781	36,857,185	37,527,943
Government securities (including Dead Weight Annuity)	13,950,375	13,950,375	13,950,375	13,962,688
Other securities	11,179,558	11,296,193	11,362,535	11,493,768
Notes.....	11,576,015	10,954,215	11,241,590	11,496,990
Gold and silver coin	508,085	390,998	302,685	574,497
	37,214,033	36,591,781	36,857,185	37,527,943

The Exchanges.

	Oct. 29.	Nov. 5th.	Nov. 12th.	Nov. 19th.
Amsterdam, short ..	11 18½	11 17	11 16¾	11 17
Ditto 3 months..	11 19¾	11 18½	11 18½	11 18½
Rotterdam, ditto ..	12	11 18½	11 18½	11 18½
Antwerp, ditto ..	25 45	25 45	25 42½	25 42½
Brussels, ditto.....	25 45	25 45	25 42½	25 42½
Hamburgh, ditto....	13 8	13 7½	13 7½	13 7
Paris, short	25 20	25 20	25 20	25 20
Paris, 3 months	25 42½	25 40	25 40	25 42½
Marseilles, ditto	25 42½	25 42½	25 42½	25 42½
Frankfort, ditto	120½	120½	120½	120½
Vienna, ditto.....	11 49	11 46	11 50	11 47
Trieste, ditto.....	11 50	11 50	11 50	11 49
Petersburgh, ditto ..	38	38½	38	38
Madrid, ditto	49⅜	49⅜	50	50
Cadiz, ditto	49⅜	50	50½	50½
Leghorn, ditto	30 65	30 65	30 65	30 67½
Genoa, ditto.....	25 57½	25 60	25 57½	25 65
Naples, ditto.....	41½	41½	41½	41½
Palermo, ditto	123½	124	124	124
Messina, ditto	123½	124½	124½	124
Lisbon, 60 days' date	53¼	53½	53½	53½
Oporto, ditto	53½	53½	53½	53½
Rio Janeiro, ditto ..	—	—	—	—

PRICES OF BULLION.

	Per Ounce.	Per Ounce.	Per Ounce.	Per Ounce.
Foreign Gold in Bars, (Standard).....	£3 17 9	£3 17 9	£3 17 9	£3 17 9
New Dollars.....	0 4 11½	—	—	0 4 11½
Silver in Bars(Stand.)	0 5 1½	—	—	0 5 1½

French 4½ per Cent., at Paris, Oct. 26 100f.00c.
Ditto 3 per Cent.. ditto 82f.10c.

Bankers' Weekly Circulation Returns.

Pursuant to the Act 7 & 8 Victoria, c. 32; extracted from the LONDON GAZETTES.

PRIVATE BANKS.

NAME OF BANK.	Authorised Issue.	AVERAGE AMOUNT.			
		Oct. 9.	Oct. 16.	Oct. 23.	Oct. 30.
		£	£	£	£
1 Andover Bank	17,751	15,831	16,049	15,324	13,450
2 Ashford Bank	11,849	12,021	10,935	11,558	11,015
3 Aylsham Bank	5,854	4,392	4,270	4,382	4,493
4 Aylesbury Old Bank	48,461	28,052	28,661	28,051	26,720
5 Baldock and Biggleswade Bank	37,223	24,106	24,577	23,494	23,244
6 Barnstaple Bank	17,182	11,290	11,807	11,557	12,535
7 Basingstoke and Odiham Bank	24,730	16,645	16,968	16,662	15,950
8 Bedford Bank	34,218	35,102	34,194	32,022	33,089
9 Bewdley Bank	18,597	10,256	10,330	10,723	11,308
10 Bicester and Oxfordshire Bank	27,090	14,609	15,354	15,767	15,044
11 BirminghamBank—Attwoods&Co.	23,695	24,770	25,798	23,278	20,859
12 Birmingham and Warwickshire Bk.	18,132	11,517	12,021	11,898	11,429
13 Blandford Bank	9,723	7,296	7,358	7,279	7,240
14 Boston Bank—Garfit and Co.	75,069	69,386	72,832	74,162	74,986
15 Boston Bank—Gee and Co.	15,161	14,556	16,362	14,452	13,207
16 Bridgewater Bank	10,028	4,958	4,893	5,094	4,926
17 Bristol Bank	48,277	35,571	35,784	35,958	35,368
18 Broseley and Bridgenorth Bank	26,717	16,167	16,615	17,412	18,374
19 Buckingham Bank	29,657	25,888	25,568	25,020	24,172
20 Bury and Suffolk Bank	82,362	73,010	73,450	72,780	71,316
21 Banbury Bank	43,457	35,789	36,463	36,688	36,113
22 Banbury Old Bank	55,153	27,427	27,220	27,413	27,498
23 Bath City Bank	4,572	3,475	3,509	3,700	3,613
24 Bedfordshire Leighton Buzzard Bk.	36,829	35,982	35,663	37,057	37,726
25 Birmingham Bk.—Taylor & Lloyds	38,816	33,826	35,617	34,677	34,004
26 Bradford Old Bank	12,676	13,213	13,276	12,535	11,375
27 Brecon Old Bank	68,271	70,692	72,691	69,454	66,601
28 Brighton Union Bank	33,794	23,960	23,530	22,915	22,568
29 Burlington and Driffield Bank	12,745	12,549	12,099	12,113	12,154
30 Bury St. Edmund's Bank	3,201	2,390	2,479	2,589	2,942
31 Cambridge Bk.—Mortlock & Co.	25,744	12,461	14,038	14,687	15,439
32 Cambridge and Cambridgeshire Bk.	49,916	40,670	42,555	44,186	43,251
33 Canterbury Bank	33,671	35,045	37,527	32,417	28,158
34 Carmarthen Bank	23,597	22,874	22,951	23,760	23,532
35 Chertsey Bank	3,436	3,480	3,290	3,134	3,228
36 Colchester Bank	25,082	17,512	17,038	16,575	16,132
37 Colchester and Essex Bank	48,704	31,660	31,580	32,965	32,750
38 Cornish Bank—Tweedy & Co.	49,869	46,102	46,204	46,083	45,881
39 Coventry Bank	12,045	7,138	7,670	7,489	7,325
40 City Bank, Exeter	21,527	19,901	20,023	20,476	21,229
41 Craven Bank—Alcocks & Co.	77,154	77,447	76,633	77,036	76,830
42 Cardiff Bank	7,001	6,085	6,231	6,055	5,664
43 Chepstow Old Bank	9,387	8,598	8,695	9,015	9,716
44 Derby Bank—Messrs. Evans	13,332	9,380	10,433	10,609	10,548
45 Derby Bank—Smith and Co.	41,304	42,225	41,543	39,606	40,627
46 Derby Old Bank	27,237	28,564	27,257	24,621	25,464
47 Devizes and Wiltshire Bank	20,674	10,050	9,603	9,537	9,421
48 Diss Bank	10,657	10,578	10,021	9,770	10,340
49 Doncaster Bank and Retford Bank	77,400	64,673	65,750	68,541	67,876
50 Darlington Bank	86,218	84,259	83,487	86,887	86,555

WEEKLY RETURNS OF BANKS OF ISSUE.

NAME OF BANK.	Authorised Issue.	AVERAGE AMOUNT.			
		Oct. 9.	Oct 16.	Oct. 23.	Oct. 30.
	£	£	£	£	£
51 Devonport Bank	10,664	10,146	9,895	9,941	10,333
52 Dorchester Old Bank	48,807	49,490	48,133	44,403	45,223
53 East Cornwall Bk.—Robins & Co.	112,280	114,997	114,008	108,402	105,026
54 East Riding Bank—Bower & Co.	53,392	52,407	54,979	54,597	51,024
55 Essex Bk. & Bishops Stortford Bk.	69,637	44,070	43,207	43,718	44,291
56 Exeter Bank	37,894	29,307	30,144	30,339	30,195
57 Fakenham Bank	24,293	21,396	23,402	23,291	22,339
58 Faringdon Bk. & Bk. of Wantage	8,977	6,605	6,040	6,254	6,570
59 Farnham Bank	14,202	12,535	12,258	13,510	14,170
60 Faversham Bank	6,681	5,484	6,731	6,453	6,034
61 Godalming Bank	6,322	4,880	4,773	4,341	4,030
62 Guildford Bank	14,524	7,720	7,321	7,436	6,633
63 Grantham Bank—Hardy and Co.	30,372	27,532	27,234	29,543	30,553
64 Hastings Old Bank	38,038	30,497	32,875	34,190	33,774
65 Hereford City and County Bank	22,364	15,972	16,105	20,063	20,270
66 Hertford and Ware Bank	23,635	15,324	16,687	17,287	18,754
67 Hull & Kingston-upon-Hull Bank	19,979	19,390	20,317	19,818	19,532
68 Huntingdon Town & County Bank	56,591	45,356	48,328	48,005	46,786
69 Harwich Bank	5,778	5,117	6,165	6,017	5,395
70 Hemel Hempstead Bank	23,842	22,252	22,168	21,817	22,150
71 Hertfordshire, Hitchin Bank	38,764	32,330	34,010	33,919	33,478
72 Hereford, Ross, & Archenfield Bk.	27,625	19,242	21,038	24,846	23,285
73 Ipswich Bank	21,901	19,865	20,211	19,199	18,925
74 Ipswich & Needham Market Bank	80,699	58,006	59,442	60,038	58,288
75 Kentish Bank—Mercer & Co.	19,895	15,769	18,457	21,684	21,295
76 Kington and Radnorshire Bank	26,050	28,874	24,308	26,301	24,343
77 Knighton Bank	9,090	10,136	9,324	8,030	8,850
78 Knaresborough Old Bank	21,825	18,445	19,063	19,104	18,814
79 Kendal Bank	44,663	42,484	42,457	43,207	43,231
80 Kettering Bank	9,192	9,523	9,116	8,823	8,323
81 Lane End Staffordshire Bank	5,624	5,206	5,075	5,342	5,218
82 Leeds Bank	53,357	53,822	53,528	52,794	51,518
83 Leeds Union Bank	37,459	38,204	37,017	36,961	37,031
84 Leicester Bank	32,322	24,736	27,067	27,416	27,933
85 Lewes Old Bank	44,836	32,411	34,063	35,225	35,582
86 Lichfield Bank	22,786	15,660	15,357	15,967	16,318
87 Lincoln Bank	100,342	87,622	92,262	97,471	96,514
88 Llandovery Bank & Llandilo Bank	32,945	23,231	23,035	24,008	26,724
89 Loughborough Bank	7,359	7,633	7,624	6,863	6,840
90 Lymington Bank	5,038	4,005	4,137	4,060	3,875
91 Lynn Regis and LincolnshireBank	42,817	33,735	34,760	31,983	36,495
92 Lynn Regis and Norfolk Bank	13,917	12,675	13,050	12,573	12,216
93 Macclesfield Bank	15,760	14,745	14,885	14,868	15,336
94 Manningtree Bank	7,692	2,540	2,542	2,689	2,477
95 Marlborough Bank	19,073	1,799	1,888	2,014	1,924
96 Merionethshire Bank	10,906	7,587	8,174	9,717	9,992
97 Miners' Bank	18,688	14,696	14,611	14,503	14,800
98 Monmouthshire Agricultural and Commercial Bank	29,335	26,214	26,603	27,222	27,330
99 Monmouth Old Bank	16,385	16,818	16,450	15,797	14,978
100 Newark Bank	28,788	23,573	24,559	25,253	26,020
101 Newark and Sleaford Bank	51,615	49,463	52,260	47,319	50,101
102 Newbury Bank	36,787	22,465	23,490	23,727	22,728
103 Newmarket Bank	23,098	17,434	19,982	19,682	21,626
104 Norwich Crown Bank and Norfolk and Suffolk Bank	49,671	48,253	49,624	47,922	46,990
105 Norwich and Norfolk Bank	75,372	65,495	68,886	67,625	67,322
106 Nottingham & Nottinghamsh. Bk.	10,866	10,346	11,101	10,362	10,928

WEEKLY RETURNS OF BANKS OF ISSUE.

	NAME OF BANK.	Authorised Issue.	AVERAGE AMOUNT. Oct. 9.	Oct. 16.	Oct. 23.	Oct. 30
		£	£	£	£	£
107	Nuneaton Bank	5,898	3,631	3,795	4,271	4,022
108	Naval Bank, Plymouth	27,321	29,000	28,754	25,928	25,280
109	New Sarum Bk.—Everett & Smith	15,659	12,078	12,167	12,175	11,641
110	Nottingham Bank	31,047	28,575	26,844	26,900	27,614
111	Oswestry Bank	18,471	11,400	11,811	11,730	10,999
112	Oxford Old Bank	34,391	28,929	28,925	32,155	33,201
113	Old Bank, Tonbridge	13,183	8,590	9,861	10,493	10,106
114	Oxfordshire Witney Bank	11,852	9,833	9,552	9,040	9,032
115	Pease's Old Bank, Hull	48,807	40,139	40,822	41,209	40,035
116	Penzance Bank	11,405	11,298	11,305	11,141	10,733
117	Peterborough Bank—Yorke & Co.	12,545	10,792	11,296	10,973	10,402
118	Pembrokeshire Bank	12,910	12,749	12,436	12,468	12,501
119	Reading Bank—Simmonds & Co.	37,519	26,605	27,476	26,980	27,715
120	Reading Bk.—Stephens & Blandy	43,271	30,998	31,391	30,922	30,485
121	Richmond Bank, Richmond	6,889	6,525	6,495	6,155	6,210
122	Rochdale Bank	5,590	5,091	5,041	4,938	4,948
123	Rochester, Chatham, & Strood Bk.	10,480	7,727	8,207	8,176	7,872
124	Royston Bank	16,393	10,817	11,251	11,365	10,697
125	Rugby Bank	17,250	11,239	10,976	11,179	10,737
126	Rye Bank	29,864	14,914	16,692	17,059	17,365
127	Ross Old Bank, Herefordshire	4,420	4,649	4,293	4,019	3,908
128	Saffron Walden & North Essex Bk.	47,646	23,075	24,830	24,743	23,549
129	Salop Bank	22,338	15,505	16,382	15,444	14,869
130	Scarborough Old Bank	24,813	23,698	23,861	23,917	24,062
131	Shrewsbury Old Bank	43,191	36,651	36,924	36,708	36,677
132	Sittingbourne and Milton Bank	4,789	3,672	3,370	3,518	3,868
133	Southampton Town & County Bk.	18,589	13,059	13,609	13,777	13,105
134	Southwell Bank	14,744	13,654	13,795	14,529	14,516
135	Southampton and Hampshire Bk.	6,770	4,318	3,724	3,481	3,390
136	Stone Bank	9,154	410	405	405	405
137	Stafford Old Bank	14,166	9,257	9,709	10,598	11,378
138	Stamford and Rutland Bank	31,858	29,737	31,525	32,948	31,575
139	Shrewsbury and Welsh Pool Bank	25,336	23,569	23,955	24,046	23,796
140	Taunton Bank	29,799	24,723	25,061	25,050	26,023
141	Tavistock Bank	13,421	13,376	13,368	13,208	12,500
142	Thornbury Bank	10,026	7,334	7,760	7,527	7,360
143	Tiverton and Devonshire Bank	13,470	8,528	8,516	8,399	9,042
144	Thrapstone and Kettering Bank.	11,559	11,560	11,403	11,355	11,075
145	Tring Bank and Chesham Bank.	13,531	12,954	13,849	13,537	13,515
146	Towcester Old Bank	10,801	8,958	9,568	9,634	9,337
147	Town and County of Poole Bk. and Ringwood and Poole Bk.	11,856	9,415	9,203	9,337	10,470
148	Union Bank, Cornwall	17,003	11,161	9,935	10,035	9,864
149	Uxbridge Old Bank	25,136	16,911	16,908	14,928	14,920
150	Wallingford Bank	17,064	7,430	7,740	7,895	7,692
151	Warwick and Warwickshire Bank	30,504	22,507	23,321	24,432	25,242
152	Wellington Bank, Somerset	6,528	6,563	6,448	6,346	6,278
153	West Riding Bank	46,158	46,480	46,237	45,275	44,599
154	Whitby Old Bank	14,258	12,328	12,895	12,643	13,227
155	Winchester, Alresford & Alton Bk.	25,892	22,251	22,719	21,869	22,127
156	Winchester and Hampshire Bank	6,737	6,977	7,424	6,556	5,740
157	Weymouth Old Bank	16,461	15,878	16,802	16,619	16,434
158	Wirksworth and Derbyshire Bk.	37,602	32,990	35,009	35,476	34,781
159	Wisbeach and Lincolnshire Bank	59,713	40,703	43,197	42,750	43,254
160	Wiveliscombe Bank	7,602	7,578	7,756	7,449	7,149
161	Wolverhampton Bk.—Goodricke and Co.	14,180	9,681	11,895	12,261	11,515
162	Worcester Bank	15,463	7,077	8,375	8,230	8,823

WEEKLY RETURNS OF BANKS OF ISSUE.

NAME OF BANK.	Authorised Issue.	AVERAGE AMOUNT.			
		Oct. 9.	Oct. 16.	Oct. 23.	Oct. 30.
	£	£	£	£	£
163 Worcester Old Bank	87,448	72,054	77,405	78,025	79,227
164 Worcestershire Bank	14,309	10,775	11,228	11,265	10,200
165 Walsall Old Bank	19,937	580	580	580	580
166 Wolverhampton Bank—R. & W. Fryer	11,867	11,728	11,107	11,686	11,418
167 Yarmouth and Suffolk Bank	53,060	37,903	40,188	38,133	37,469
168 Yarmouth, Norfolk, & Suffolk Bk.	13,229	13,834	12,725	11,388	11,409
169 York Bank	46,387	45,712	45,642	46,030	45,632

JOINT STOCK BANKS.

1 Bank of Westmoreland	12,225	8,928	8,806	8,843	9,320
2 Barnsley Banking Company	9,563	10,239	9,480	8,856	8,732
3 Bradford Banking Company	49,292	48,873	50,257	48,756	47,210
4 Bilston District Banking Company	9,418	9,063	9,300	9,034	9,472
5 Bank of Whitehaven	32,681	29,548	29,730	30,654	31,469
6 Bradford Commercial Banking Co.	20,084	20,625	20,360	19,534	19,320
7 Burton, Uttoxeter, and Staffordshire Union Bank	60,701	47,386	50,035	50,972	53,445
8 Chesterfield & N. Derbysh. Bk. Co.	10,421	8,560	8,736	8,955	9,075
9 Cumberland Union Banking Co.	35,395	33,571	34,390	35,392	36,748
10 Cheltenham & Glo'stershire Bk. Co.	12,786	10,133	10,002	10,120	10,042
11 Coventry and Warwickshire Bk. Co.	28,734	28,798	29,017	28,679	27,465
12 Coventry Union Banking Company	16,251	13,880	15,090	14,620	13,240
13 County of Gloucester Banking Co.	144,352	101,294	104,268	105,592	104,330
14 Carlisle & Cumberland BankingCo.	25,610	27,134	26,558	25,295	23,358
15 Carlisle City and District Bank	19,972	19,736	20,874	20,042	18,771
16 Dudley & West Bromwich Bk. Co.	37,696	38,545	36,472	37,336	33,271
17 Derby and Derbyshire Banking Co.	20,093	20,089	19,462	19,243	19,391
18 Darlington Dist. Joint Stock Bk. Co.	26,134	21,850	21,194	22,737	21,762
19 East of England Bank	25,025	24,768	25,853	24,611	23,896
20 Gloucestershire Banking Company	155,920	153,175	154,560	156,959	153,206
21 Halifax Joint Stock Bank	18,534	18,097	18,719	18,362	18,808
22 Huddersfield Banking Company	37,354	34,789	38,030	36,393	36,258
23 Hull Banking Company	29,333	25,040	26,102	25,862	25,882
24 Halifax Commercial Banking Co.	13,733	13,600	13,931	13,609	13,331
25 Halifax & Huddersfield Union Bk.	44,137	44,279	45,720	43,461	41,727
26 Helston Banking Company	1,503	1,468	1,504	1,529	1,361
27 Herefordshire Banking Company.	25,047	20,235	21,395	25,460	25,201
28 Knaresborough and Claro Bk. Co.	28,059	27,913	28,559	28,130	26,939
29 Kingsbridge Joint Stock Bank	3,952	2,923	2,977	3,214	3,160
30 Lancaster Banking Company	64,311	54,675	56,798	58,043	58,757
31 Leeds Banking Company	23,076	23,142	24,340	23,710	20,869
32 Leicestershire Banking Company	86,060	68,772	76,158	77,716	74,008
33 Lincoln and Lindsey Banking Co.	51,620	53,494	49,876	47,534	49,606
34 Leamington Priors and Warwickshire Bank	13,875	9,018	9,734	9,765	10,055
35 Ludlow and Tenbury Bank	10,215	9,735	9,660	9,694	9,330

WEEKLY RETURNS OF BANKS OF ISSUE.

	NAME OF BANK.	Authorised Issue.	AVERAGE AMOUNT.			
			Oct. 9.	Oct. 16.	Oct. 23.	Oct. 30.
		£	£	£	£	£
36	Moore & Robinson's Notts. Bank...	35,813	32,881	32,885	32,987	33,866
37	Nottingham and Notts. Banking Co.	29,477	30,295	30,003	28,882	29,072
38	Newcastle, Shields and Sunderland Union Joint Stock Bank	84,130	1,240	1,240	1,240	1,240
39	National Provincial Bk. of England	442,371	462,409	463,008	405,415	353,118
40	North Wilts Banking Company ...	63,939	46,502	50,771	50,681	49,060
41	Northamptonshire Union Bank ...	84,356	75,299	77,666	75,751	73,537
42	Northamptonshire Banking Co. ...	26,401	23,710	25,769	25,087	24,553
43	North and South Wales Bank.....	63,951	34,252	33,970	36,166	38,168
44	Pare's Leicestershire Banking Co...	59,300	43,095	49,040	48,795	47,134
45	Saddleworth Banking Company ...	8,122	2,327	2,298	2,188	2,046
46	Sheffield Banking Company.....	35,843	37,894	36,866	33,953	33,259
47	Stamford, Spalding & Boston Bk. Co.	55,721	54,495	54,216	49,268	48,177
48	Stuckey's Banking Company	356,976	346,600	351,380	353,931	355,321
49	Shropshire Banking Company.....	47,951	48,095	49,456	50,978	42,797
50	Stourbridge and Kidderminster Bk.	56,830	56,979	54,964	54,517	54,885
51	Sheffield and Hallamshire Bank ...	23,524	20,130	22,851	24,581	24,767
52	Sheffield & Rotherham Jt. Stock Bk.	52,496	51,761	52,479	52,417	52,370
53	Swaledale and Wensleydale Bank..	54,372	51,399	50,487	50,773	51,676
54	Storey and Thomas's Bank	9,714	9,859	10,243	8,730	9,463
55	Wolverhampton & Staffordsh. Bk..	35,378	32,008	44,920	36,111	36,180
56	Wakefield and Barnsley Union Bk.	14,604	14,560	14,949	14,455	13,423
57	Whitehaven Joint Stock Bank ...	31,916	27,710	27,680	27,797	28,529
58	Warwick and Leamington Bk. Co.	37,124	31,246	31,728	30,547	31,166
59	West of England and South Wales District Bank	83,535	79,614	78,788	76,198	75,368
60	Wilts & Dorset Banking Company	76,162	75,452	77,613	73,922	71,471
61	West Riding Union Banking Co....	34,029	33,422	35,395	35,205	31,364
62	Whitchurch and Ellesmere Bk. Co.	7,475	3,020	3,180	3,032	2,864
63	Worcester City and County Bk. Co.	6,848	5,550	5,842	6,423	5,927
64	York Union Banking Company ...	71,240	71,931	69,738	68,958	69,615
65	York City and County Banking Co.	94,695	95,938	95,864	93,518	89,669
66	Yorkshire Banking Company	122,532	122,776	126,097	116,355	111,863

Summary of the above Returns.

		Fixed Issues.	Oct. 9.	Oct. 16.	Oct. 23.	Oct. 30.
		£	£	£	£	£
169	Private Banks	4,655,619	3,827,080	3,904,871	3,894,690	3,867,599
66	Joint Stock Banks ..	3,409,987	3,105,824	3,159,353	3,077,673	2,980,743
235	Totals.....	8,065,606	6,932,904	7,064,224	6,972,363	6,848,342

Average Weekly Circulation of these Banks for the month ending Oct. 30th:—

Private Banks.....	£3,873,560
Joint Stock Banks.....	3,080,898
Average Weekly Circulation of Private and Joint Stock Banks ending as above	£6,954,485

On a comparison of the above with the Returns for the Month ending 2nd Oct. last, it shows—

An *increase* in the Notes of Private Banks, of	£337,559
An *increase* in the Notes of Joint Stock Banks, of	147,801
Total *increase* on the Month.....	£485,360

CIRCULATION RETURNS.

And as compared with the Month ending 1st Nov., 1851, it shows—
An *increase* in the Notes of Private Banks, of..... £268,135
An *increase* in the Notes of Joint Stock Banks, of 220,449

Total *increase*, as compared with the same period of last year .. £488,584

The following appears to be the comparative state of the circulation, as regards the fixed issues—
The Private Banks are *below* their fixed issues £866,971
The Joint Stock Banks are *below* their fixed issues 329,089

Total BELOW the fixed issues £1,196,060

Irish and Scotch Circulation Returns.

Average Circulation, and Coin held by the SCOTCH *and* IRISH BANKS *during the four weeks ending Saturday, the 30th day of October,* 1852.

SCOTCH BANKS.

NAME OF BANK.	Authorised Circulation.	Average Circulation during Four Weeks, ending as above.			Average Amount of Gold & Silver Coin held during Four Weeks ending as above.
		£5 and upwards.	Under £5.	Total.	
	£	£	£	£	£
Bank of Scotland	300,485	118,020	230,384	348,404	124,858
Royal Bank of Scotland ...	185,000	63,606	118,458	182,064	40,272
British Linen Company	438,024	171,058	285,671	456,730	106,180
Commercial Bk. of Scotland	374,880	147,639	300,362	448,002	132,582
National Bank of Scotland..	297,024	102,158	208,490	310,649	53,502
Union Bank of Scotland and Banking Com. in Aberdeen	415,690	154,147	309,435	463,582	93,289
Edinburgh & Glasgow Bk...	136,657	68,571	93,428	161,999	36,825
Aberdeen Town and Co. Bk.	70,133	31,172	62,055	93,227	25,804
North of Scotland Bk. Co...	154,319	59,518	96,107	155,625	17,276
Dundee Banking Company	33,451	13,878	21,928	35,807	3,546
Eastern Bank of Scotland...	33,636	12,981	21,445	34,426	5,438
Western Bank of Scotland..	337,938	158,117	326,916	485,033	187,810
Clydesdale Banking Co. ...	104,028	32,590	85,341	117,931	25,861
City of Glasgow Bank	72,921	62,487	93,126	155,614	89,419
Caledonian Banking Co. ...	53,434	29,755	46,823	76,578	29,854
Perth Banking Company ...	38,656	13,795	28,570	42,365	9,860
Central Bank of Scotland...	42,933	17,738	34,914	52,653	14,580
TOTALS (Scotch Banks)...	3,087,209	1,257,230	2,363,453	3,620,689	996,956

IRISH BANKS.

Bank of Ireland.....	3,738,428	1,717,450	1,113,450	2,830,900	468,848
Provincial Bank.....	927,667	285,861	525,015	810,876	226,186
Belfast Bank	281,611	44,597	359,374	403,971	189,900
Northern Bank	243,440	24,626	195,314	219,940	44,480
Ulster Bank	311,079	54,256	334,096	368,352	93,247
National Bank	761,757	319,261	533,299	852,560	184,114
Carrick-on-Suir Nat. Bank	24,084	6,447	11,982	18,429	4,930
Clonmel National Bank ...	66,428	15,495	25,949	41,444	7,764
TOTALS (Irish Banks) ...	6,354,494	2,447,993	3,098,479	5,546,472	1,219,475

SUMMARY OF IRISH & SCOTCH RETURNS TO OCTOBER 30, 1852.

The Returns of Circulation of the Irish and Scotch Banks for the four weeks ending 30th Oct., when added together, give the following as the average weekly circulation of these banks during the past month, viz. :—

Average Circulation of the Irish Banks	£5,546,472
Average Circulation of the Scotch Banks	3,620,689
Total Average Circulation of these Banks for the past month	£9,167,161

On comparing these amounts with the Returns for the month ending 2nd Oct. last, they show—

Increase in the Circulation of Irish Banks	£670,766
Increase in the Circulation of Scotch Banks	177,628
Total increase on the month	£848,394

And as compared with the month ending Nov. 1st, 1851, they show—

Increase in the Circulation of Irish Banks	£833,583
Increase in the Circulation of Scotch Banks	307,256
Total increase on the year	£1,140,839

The fixed issues of the Irish and Scotch Banks at the present time, are given in the *Banking Almanac*, as follows:—

8 Banks in Ireland, allowed to issue	£6,354,494
18 Banks in Scotland, allowed to issue	3,087,209
26 Banks in all, allowed to issue	£9,441,703

The following appears, therefore, to be the comparative state of the circulation:—

Irish Banks are below their fixed issue	£808,022
Scotch Banks are above their fixed issue	533,480
Total below the fixed issue	£1,341,502

The amounts of Gold and Silver held at the head offices of the several banks, during the past month, have been as follows:—

Gold and Silver held by the Irish Banks	£1,219,475
Gold and Silver held by the Scotch Banks	996,956
Total of Gold and Silver Coin	£1,216,431

Being an increase of £116,919 on the part of the Irish Banks, and a increase of £99,417 on the part of the Scotch Banks, on the several amounts held by them during the preceding month.

CIRCULATION OF THE UNITED KINGDOM TO OCTOBER 30, 1852.

The following is the state of the Note Circulation of the United Kingdom, for the month ending the 30th October, 1852.

Circulation of Notes for the Month ending October 30th, as compared with the previous month:

	Oct. 2.	Oct. 30.	Increase.	Decrease.
Bank of England	£21,948,981	£23,221,329	£1,272,348	—
Private Banks	3,536,001	3,873,560	337,559	—
Joint Stock Banks	2,933,097	3,080,893	147,891	—
Total in England	28,418,079	30,175,787	1,757,708	—
Scotland	3,443,061	3,620,689	177,628	—
Ireland	4,875,766	5,546,472	670,766	—
United Kingdom	36,736,846	39,342,948	2,606,102	—

The comparison of the month ending November 1st, 1851, with the month ending October 30th, 1852, shows an *increase* in the Bank of England circulation of £2,867,683 an *increase* in Private Banks of £268,135, and an *increase* in Joint Stock Banks of £220,449; being a total *increase* in England of £3,356,267: while in Scotland there is an *increase* of £314,256; and in Ireland an *increase* of £833,583. Thus showing that the month ending 2nd October, as compared with the same period last year, presents an *increase* of £3,356,267 in *England*, and an *increase* of £4,504,106 in the *United Kingdom*.

The return of Bullion in the Bank of England, for the month ending October 30th gives an aggregate amount in both departments of £21,447,765. On a comparison of this with the Return for the month ending Oct. 2nd, there appears to be a *decrease* of £333,771; and an *increase* of £6,291,039 as compared with the same period last year.

The stock of specie held by the Banks in Scotland and Ireland during the month ending 30th Oct., was £2,216,431, being a *increase* of £216,336 as compared with the return of the previous month, and an *increase* of £409,714 as compared with the corresponding period last year.

Waterlow and Sons, Printers, Carpenters' Hall, London Wall.

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Prize Essay

ON

THE ADAPTATION OF RECENT INVENTIONS

TO THE PURPOSES OF

PRACTICAL BANKING.

By GRANVILLE SHARP.

"Every new development of Science may be looked upon as the opening of a fresh mine of wealth, awakening moral industry and sagacity, and employing, as it were, new capital of mind."

PERHAPS there are few men (if there be any), since the days of Adam Smith, who have done so much to advance Banking, as a science, and to promote its cultivation and practical development, as James William Gilbart, F.R.S., the originator of this humble Essay, who has for many years presided over the Executive of the London and Westminster Banking Company, a commercial establishment, of recent origin indeed, but in the magnitude and importance of its operations inferior only to the Bank of England. Mr. Gilbart has announced in the '*Bankers' Magazine*' for January last, that he will present the sum of £100 to the author of the best Essay which shall be written in reply to the following question:—

"In what way can any of the articles collected at the Industrial Exhibition of 1851 be rendered especially serviceable to the interests of practical Banking?"

And in the same announcement is contained an intimation of what such articles may consist, viz.:—

Architectural Models that may suggest improvements in the Bank House or Office.

Inventions by which Light, Heat, and Ventilation may be secured, so as to promote the health and comfort of Bank clerks.

Discoveries in the Fine Arts, by which the interior of the Bank may be decorated, or the Bank furniture rendered more commodious.

Improvements in Writing Paper, pens, ink, account books, scales, letter copying machines, or other instruments used in carrying on the business.

Improvements in Printing and Engraving, by which Banks may get their notes, receipts, letters of credit, and other documents, of a better kind, at a less expense, or so as to prevent forgery.

New inventions in the construction of locks, cash boxes, and safes, which shall render property more secure against fire or thieves.

And generally all articles, of every kind, which can be so applied as to improve, cheapen, or facilitate any of the practical operations of Banking.

This announcement appears to have a twofold object—first, to secure to a large class of men a great advantage, by inducing them to give that amount of intelligent and careful attention to the scientific and really useful objects displayed at the Great Exhibition, which, without some such stimulus, would probably not have been elicited; and secondly, to promote the convenience and welfare of the Banking community, by pointing out, through the medium of a familiar and practical Essay, any objects which may seem calculated to assist its members in the prosecution of their business.

Although the proffered prize can be obtained by only *one*, the many unsuccessful competitors will have the consolation of not labouring in vain, inasmuch as they will have reaped a considerable share of practical and scientific knowledge, and have become the subjects of that wholesome mental influence which invariably accrues from the energetic direction of the mind to any object that widens its comprehensive faculties or dilates its powers. For this, at the least, every unsuccessful candidate will have to tender his sincerest thanks to the liberal originator of his Essay, unsuccessful though it be. Another subject for great thankfulness is also found in the striking parallel which exists between the religious advancement of the several countries and the state of science and manufacture there prevailing, as indicated by their productions, which they have respectively sent over—so prominently marked by our own position in the affair, establishing at once the fact that England's religious privilege and position stands intimately connected with England's productiveness and power.

As an Essay of practical utility is the liberal founder's object, and as objects of practical utility are the subject of the writer's Essay, the reader will, it is presumed, expect to find plainness and perspicuity of expression rather than studied elegance and purity of style.

So much having been most ably written upon the Great Industrial Exhibition supplies, it is hoped, a sufficient apology for the absence of any further introduction of the subject; one remark, however, may perhaps not improperly be here introduced in reference to the apparent inconsistency between the avowed object of the Royal Founder of the National Exhibition, which was to promote closer and more intimate relations between our own and foreign countries, by affording encouragement to international trade and reciprocity of commerce; and the still continued fiscal burthen of our duties of customs and inland revenue, especially when those duties are imposed between the mother country and her colonies.

The announcement of Mr. Gilbart's prize having been accompanied by a very comprehensive framework for the Essay, it seems highly suitable to make *that* in some degree a guide as to the order of proceeding, and without confining the writer strictly to its limits, to class the objects of remark as much as may be under its several heads. It must, of course, be apparent that many, perhaps most, of the inventions and articles which will be referred to have not an *exclusive* bearing upon Banks or Banking, or upon the comfort and convenience of those engaged therein; but this exclusive adaptation is not required in the announcement, and it is therefore submitted, that the following observations are perfectly within its scope, if the objects referred to can be shown to possess advantages in which the Banking community may share, conjointly with other sections of the people generally.

I.—The Essayist's attention is, first of all, directed to "Architectural Models that may suggest improvements in the Bank House or Office."

The principal features and more substantial parts of Banking House architecture will generally be much affected by local circumstances, as well as by the character and amount of business to be transacted in the building.

These, therefore, may, perhaps, be deemed—though in themselves considerations of paramount importance—yet, for the present purpose, as some-

what subordinate to those internal details and minor arrangements, upon which the comfort and convenience of the occupants of such buildings *as are at present existing* so materially depend; and which, it is presumed, the Proposer of the Essay primarily contemplated.

Amongst these may be suggested the character and style of *Windows;* the sort of *Shutters;* the arrangement of *Acoustic Tubes,* as well as *Stoves* or *Warming Apparatus, Wind Guards,* and *Cowls for Chimnies;*—not omitting, although more connected with the original construction of the building, *Fire-proof Floors* and *Ceilings, Windows* and *Sashes.*

The architecture, however, of a Banking House, more especially if it be of a National character, or expected to assume an important position from the magnitude of its operations, should be marked externally, internally, and everywhere, by *Stability,* as its leading feature; which a builder of intelligence will take care shall be combined with *Taste.*

In the present highly enlightened and civilized state of society in England, it may, at first sight, be thought by some unseemly to erect a Banking House on the principle adopted at the Bank of England, where the whole of the four external faces of the building present to the observer a regular series of fortification, having all its windows facing inwards, and accessible from the four streets with which it is surrounded only by massive gates and doors; but when it is remembered that the Bank of England is intended and expected (and what contemplated Banking House is *not* intended) to endure for centuries, and to witness possibly political convulsions, as well as the wear and waste of time, it will be seen to be wise, even in such peaceful times as these, to found it on a rock, and rear it like a rock—of granite; and supplied with means for the location and protection, in cases of emergency, of a Constabulary, or even Military Force, upon its roofs and ramparts.

The Ground Floor and the Basement will be objects of the first importance; and in digging for the latter, and in the construction of the areas, it will be well to prevent the possibility of the "*Screw*" being used in any attempt to force the shutters. This *has* been attempted where the areas are too much confined—the soil serving as a rest or fulcrum for the "*Double Screw*" to act upon—an instrument of prodigious force, before which almost any shutter must give way. For the same reason, Iron Palisading, when placed in front of windows, should be so constructed that, whilst calculated to resist pressure *from without,* it may not be needlessly strong in the opposite direction; otherwise it will only afford the means of using a powerful invading force, which is impotent when unsupported. The chief protection for windows should be sought in substantial shutters, which will be referred to hereafter.

The External Doors should be of the very strongest character; and, if wood be used, it should be lined with iron, or thickly studded with rivets of the same material.

There seems also a strict propriety in protecting the doors at night (in accordance with the windows) by revolving Iron Shutters, of which more will be said hereafter.

The Inner Doors, forming the more immediate access to the Public Counter, it is submitted should not be, as at present, a pair of folding-doors, *one* adapted for entrance, and *the other* for departure; but should be two distinct and separate openings, as far removed from each other as circumstances will admit of; so that the approach to the counter should be at one end, and the exit at the other—the public always passing in the same direction.

Several improvements have presented themselves in Windows and Window Sashes; and "*Barrow's Patent Sash,*" exhibited by Mr. Thomas Turner, is extremely good, and adapted for first-rate windows of plate-glass, which, since the recent abolition of the duty, has become considerably reduced in price. This sash is made in bronze metal, and the cost per foot is regulated by the

size of the sash required. They are said to be extensively used, and that the Bristol and Manchester Branches of the Bank of England have adopted them. Each sash slides up and down, so that the window can be opened both at the top and bottom; and the meeting bars are so constructed that the sashes when closed are perfectly flush on both sides, instead of the lower one, as is the case with common sashes, projecting its own thickness into the room;—both sashes being in the same plane gives a far neater appearance to the window, and presents less lodgment for dirt or dust. It has, moreover, a self-acting latch in the sill-bar, so arranged that *the sash cannot be closed without being securely fastened.* The lines are concealed, and it is remarkably free from vibration.

The specimen exhibited was most beautifully executed, and would form a very suitable window for handsome buildings.

Mr. G. Harwood, the inventor, exhibits a patent apparatus for "*Moving and Fastening Windows,*" the various applications of which are very ingenious. He has published an illustrated Pamphlet, containing a full description. One principal feature in the invention is the application of the screw, the worm of which, working into a rack or pinion, acts as a prime mover—dispensing with all pulleys, weights, cords, springs, setopes, fastenings, &c.; and is particularly adapted to pivot windows, and to situations where the windows are above ordinary reach, as in lofty buildings. This invention has been very satisfactorily adopted in some of the public buildings in Norwich, and was availed of to regulate the ventilators in the Great Exhibition. It most effectually does away with the harsh and noisy friction of sash pulleys, which it is almost impossible to oil; and overcomes, by the mechanical power of the screw, the difficulty frequently experienced in opening and shutting windows. The speed and power of the motion communicated can be readily regulated by the diameter of the rack or pinion employed to produce it.

Mr. George Anderson's model of an improved window has some excellent properties; and he intends shortly to publish a full description, together with the prices.

Much inconvenience having arisen from dirty windows, and no small amount of danger having attended the cleaning of them, many have attempted to obviate the necessity for getting on the outer side for this purpose; among the most successful essays is, perhaps, that of Mr. C. Herring, who exhibits a patent sash, which can most easily be taken out to be cleaned. The arrangement is extremely simple, and consists of a metal rod dovetailing into the sides of sash frame, and sliding up and down with the sash; this rod is connected with the sash by two small flush bolts at top and bottom of it; the lines and weights are attached to this rod; when the bolts are withdrawn the rods slide up and the sash is released, and may be removed from the frame. A similar model, upon the same general principle, is exhibited by Mr. B. E. Roberts, of Nelson Place, Clifton, who also claims the invention. As we shall have occasion to make a few additional remarks upon windows in our allusion to the important question of ventilation, we direct our attention to

Shutters.

Shutters, as a means of protection, form an important feature in the fittings of a banking building, and, as some degree of solidity and strength, and consequently weight, is necessary, the arrangements for placing and removing them should be as scientific as possible, in order to economise both time and labour. For this purpose, the revolving iron shutters, now coming into general use, seem very desirable; by it, the antiquated plan of putting up and taking down, one by one, separate external shutters, is avoided, and the expense of replacing broken glass and repairing shutters, (ofttimes shattered by uncareful handling of them,) as well as the inconvenience, and sometimes accident, arising from the long bars by which they are fastened, entirely removed.

The revolving shutters formed of curvilinear iron lath, and manufactured by Messrs. Bunnett & Co., Deptford, are very excellent in their construction, and work most easily. The curving of the iron lath, of which this shutter is composed, gives additional strength, without adding very materially to its weight, or much augmenting its expense. Their cost is usually from 6*s.* to 7*s.* per foot superficial, according to the size of the window, and, if kept well painted, are extremely durable.

The shutters seem only a modification of the principle adopted by Mr. Harcourt Quincey, in his Patent *Convex* Revolving Iron Shutters.

These are made of convex laths, and are said to be twelve times stronger than those composed of flat laths of the same substance.

These revolving shutters can be applied either horizontally or vertically, and are valuable, from the facility with which they may be closed in cases of popular tumult.

Mr. Archibald Horn is also the inventor of an Iron Shutter for Bankers; and in cases where it may be desirable to retain the old detached shutters, Jenning's Joints and Shutter Shoes are by no means without their use.

Acoustic Tubes.

Among the most useful means of saving unnecessary labour in offices may be placed the Speaking Tubes or Telegraphs and Communicators, by which messages may be sent from room to room; and thus the necessity of running to and fro to answer bells, lessened by at least one-half. Mr. Whishaw's Telekonphonon is a plain gutta percha tube, with a mouth-piece and whistle at each end; there are some additional arrangements for communications from several rooms; but the gutta percha pipe, mouth-pieces, and whistles, seem all that are necessary for ordinary purposes. Gutta percha is a most desirable substance for the tubing, as it possesses a remarkable sound-transmitting quality; and speaking-tubes, &c., are made by the Gutta Percha Company. The manner of calling attention to the pipe is by blowing into the whistle at one end, when the sound is immediately transmitted to the other, and conversation may be commenced. When this is ended, the whistles, which are moveable, should be replaced. Messrs. Bryden and Sons have invented a *self-closing* mouth-piece, which would be a very desirable addition to these speaking tubes; by it, the removal of the whistle is rendered unnecessary. Perhaps these tubes might form a most useful means of communication between the Board Room and the several offices in the Bank, as well as from the counter to the Ledger Office, by which any inquiry might be immediately answered, without either loss of time or noticeable conference between the Ledger Clerk and the counter.

Wind-Guards and Cowls for Chimneys.

In few matters have there been so many different attempts to accomplish the same result as in the cure of Smoky Chimneys; and it is very desirable that, if tolerated at all, the nuisance of smoke should be kept out of doors.

This subject is very intimately connected with ventilation, in the consideration of which it will be again referred to. One important means of obviating this nuisance is to prevent the free passage of the smoke, caused by the current of rarefied air up the chimney, being interfered with by the force of the wind striking the top of the chimney. To avoid this, Mr. J. E. Grisdale has invented a wind guard, consisting of a cap poised upon a point on the top of the chimney. This cap, the moment the wind strikes it, turns it back to the current, and closes that side of the opening. The principal objection appears to be in the extreme facility with which it vibrates. Mr. Grisdale has registered this invention provisionally, and, not having the means himself,

is anxious to meet with some one to assist him in bringing it out. From its extreme simplicity it would be very inexpensive,

Mr. Stafford's interceptor cowl, for the same purpose as that last mentioned, is very well arranged, but would be more costly, on account of its construction.

These contrivances will be very useful in situations where a chimney is overtopped by lofty buildings; but we imagine that in the majority of cases where inconvenience is experienced, the evil exists near the fireplace, or in the "throat" of the chimney, rather than at the top of the flue. This will be more fully exhibited in our reference to stoves and fireplaces.

Fireproof Floors, Ceilings, and Roofs of Buildings.

Specimens of this improved construction of fire-proof floors are exhibited by Messrs. Fox and Barrett; and one is certainly struck with the assertion, that the expense of these substantial and massive floors is not greater than the ordinary timber construction. This is surprising, on account of the great weight which has to be sustained, the floor and ceiling being about nine inches thick, of solid material. The small cost may, however, be in some degree accounted for by the extreme lightness of the iron joists, the cheapness of the material employed in each successive layer, as well as from the very little amount of *skilled labour* required in their construction.

In cases of fire, the floors, composed chiefly of timber, afford, from their very construction, a supply of air to feed the flame; and, from the combustible character of the material, present very little hope of its progress being stayed. This invention will afford the means of diminishing the present extensive use of timber in buildings, by the almost universal adoption of which considerable danger is incurred. Mr. Braidwood, the Superintendent of the London Fire Engine Establishment, has stated, in evidence before a Committee of the House of Lords, that, by exposure for a few years to heat *not much above that of boiling water*, timber is brought into a condition somewhat resembling that of *spontaneous combustion*; and for the fire which occurred a few years since at Day and Martin's blacking manufactory no other cause could be assigned than the ignition of the wooden casing in which the hot-water pipes were enclosed. If these facts be correct, the character of the floors through which warming apparatus are generally made to pass must be a matter of importance. Considerable strength and solidity are given to the building generally by these floors; the iron bearing the *tensile* strain, and the concrete resisting the force of *compression*. A paper upon the subject, read at a meeting of the Society of Arts, has been published, which contains a full account of the arrangement.

This invention seems well adapted to those rooms in which books that have been filled and banking documents are kept; where security from fire is so necessary a desideratum, not very readily obtained above ground.

II.—We now consider, secondly, those inventions by which "Light," "Heat," and "Ventilation," may be secured, and which so materially promote the health and comfort of bank clerks.

Light—Gas, Candles.

Like many of the discoveries of modern times, gas has not only great capacities for contributing to men's convenience, but also for their annoyance and injury, and this is most fully exemplified when this most valuable substitute for the solar ray is employed excessively.

Most jets are adapted by their form and size to burn well a certain quantity of gas, and if less be turned on inconvenience is sure to arise, and if more is allowed to pass incomplete combustion ensues, producing rapidly a most injurious and painfully oppressive condition of the air in the apartment.

Burners are frequently somewhat inaccessible, or in the press of business they are disregarded until the smell of half-consumed gas is insupportable, and in order to regulate the light it may be necessary to adjust the cock several times in the course of an hour. To obviate this evil Mr. Biddell has invented a self-regulating gas burner which adapts itself to all variations of pressure, preventing the flame from either rising or falling above or below any desired height to which it may be adjusted, thus saving gas and preventing smoke. Its self-acting property depends upon the expansion and contraction of a compound rod in the centre of the flame, which, by means of a small lever and simple valve, shuts off or lets on the gas according as its pressure may be increased or diminished. This invention can be adapted to the button burner, which gives a whiter light; a light, however, which is more expensive than the red on account of its rapid consumption of gas, although the objection of cost would be perhaps overruled, when it is remembered that the whiter the light the less prejudicial it is to the eye, and the more complete the combustion of the gas the purer will be the atmosphere of the apartment.

Mr. Biddell's burner is furnished with a gauze covering at the bottom, which insures great steadiness of the flame by preventing any sudden draught from disturbing it. This addition of wire-gauze has also been used with some other burners recently introduced, amongst others with that of Mr. Winfield, which is a beautiful burner, and with the opal shades is becoming now very generally used, the only inconvenience of this improvement is the necessity of removing the chimney to light the gas, otherwise the gauze, if fine, while the chimney is cold frequently prevents the immediate admission of air necessary to support the combustion of the gas. It may be remarked, in passing, that gas burners are treated somewhat inconsiderately; they are lighted night after night for months together without any attention being paid to their condition, and thus, from some of the holes becoming partly closed, an inequality in flame is a necessary result. And then, in order to produce the same amount of light, the gas is turned on higher, and incomplete combustion, in some parts of the flame at least, is sure to ensue. Might it not be well to have an annual or half-yearly inspection of all gas burners in a Bank?

The introduction of pipes leading from the gas burner shades into the flue of the fire-place would very materially assist ventilation, and carry away the impurities those burners generate. The shade invented by Mr. Winfield merits attention on account of its reflecting qualities, its durability and cleanly surface, and the pleasant light which it diffuses. This will probably entirely supersede the copper-plate reflector, which, being quite opaque, has a tendency too much to darken the room.

The cost of this burner is about 7*s.* 6*d.*, and they are issued regulated to a 2½ inch flame. Mr. Biddell has some very flattering testimonials from Messrs. Ransome & Co., Ipswich, the Gas Fitters' Mutual Association of London, and others, to the value of his invention, which appears especially adapted to the counters of Banking Establishments, as well as other places where the proper amount of flame from the burner cannot be made the subject of frequent attention.

Candles.

Some of the inconveniences attending the use of candles may be considerably lessened by a little invention of the Rev. W. H. Jones—the "Acolyte," or Patent Safety Candle Cap; which cap being placed upon the top descends as the candle burns, and ensures regularity in the melting of the wax or tallow, thereby preventing the guttering and the dripping of the grease. *Price's Patent Candle Company* are the Licensees for its manufacture, and it is

intended more especially to be used with their article denominated the "Composite."

It may not have been generally observed what an amount of smoke some candles produce, causing the same unpleasant smell as well as painful effect upon the lungs as that arising from the smoke of gas. The best Composite Candles, of which there were some beautiful specimens exhibited, smoke the least—the additional expense of which is indeed very little, and no doubt if more attention were directed to the subject, even common candles might be materially improved.

Heat.

So large a portion of civilised society, and especially those employed in banks, being engaged in pursuits of a sedentary kind, the means of obtaining artificial heat in this variable climate are of much importance, and it is very interesting to observe the various improvements which have been recently made.

With all these, however, and some of the fire places are exceedingly attractive, the question of *stoves and open fires* does not seem quite settled in favour of the latter, and Mr. Edwards steps forward in defence of Dr. Arnott's invention, against the many who in professedly copying the stove, have not adopted the principle upon which it acts, and thus brought both into disrepute.

The real Arnott stove is upon the principle of an extensive and moderately warm heating metal surface at about 200° Fahrenheit; it consists of a sheet iron box, which may be of any dimensions in proportion to the size of the room to be heated; it is divided by a partition into two chambers of unequal dimensions, which communicate freely at the top and bottom. A fire box composed of iron lined with fire-brick, rests at the bottom of the larger chamber; access is obtained to it by a door which must fit closely. The refuse of the fire falls into an ashpit below, here also is a valve for the supply of air to the fire box. The fumes and heat of the fire pass up and down, over and under the partition, giving warmth to the outer case; the smoke finally passes off by a flue into an adjoining chimney. The heat is regulated by the valve for admitting air; when this is opened widely a large stream enters and combustion becomes active; when on the contrary the aperture is reduced, a comparatively small stream is admitted and combustion languishes. The temperature of the outer case is raised or depressed accordingly by the revolution of the heat and smoke round the division of the chambers, their power of giving forth warmth is expended as far as possible on the plates of the outer case, so as to be serviceable for the end in view, and it might be possible to exhaust the whole for that end by lengthening the flue or causing a greater extent of it to pass through the air of the room before entering the chimney. This apparatus certainly makes the most economical use of fuel of any species of contrivance for producing artificial heat yet known. Six pounds of Welsh coal or coke, of the value of one penny, will it is said supply an ordinary one for a day.

The prevalent fault in the Arnott's stoves generally manufactured, has been a diminution of the heating surface in proportion to the strength of the furnace.

All metal surfaces, however well the principle of a large surperfices moderately warmed may be observed, raise the temperature by two means, namely, by radiation and by conduction. Radiated heat, which is that given by a common fire, is perfectly safe, but the heat produced by the air coming in contact with a warmed surface is more injurious. The air which forms the medium of heating the rest has been altered in its character, particularly in being desiccated or deprived of its humidity. It is necessary to counteract this result by

artificial infusion of humidity into the atmosphere. Perhaps the best possible arrangement for this purpose is that consisting in a trough of water with a roller moving in it, and a similar roller forming a windlass about 2 feet above. Between the windlass and the roller an endless piece of towelling revolves. The bottom of the piece of towelling, passing of course through the water, it is only necessary to turn the windlass a few times in order to make the whole wet, and this process may be repeated as often as necessary. The vapour constantly arising from the cloth, will, if sufficient in quantity, make good the want of humidity in the stove-heated air.

It is rather singular that Mr. Edwards makes no allusion in his little pamphlet to this desiccation of the air by stoves, nor to the means of removing it.

In the stoves exhibited by Mr. Juckes and Mr. Pierce, together with the great advantage of heating by earthen instead of metal surfaces, a principle is announced, which is but rarely used although it has been occasionally adopted for many years, viz., the introduction of the air from the outside of the building by a flue or pipe. This, upon a little consideration, will be shown to be very important, and it is possible that neither of these gentlemen has fully recognized the value of the principle which they have adopted ; we shall however refer to this again.

Gas has been asserted to be an economical heating agent—and Messrs. Feetham and Co. exhibit a very elegant stove of white porcelain. In many of the gas stoves, by other manufacturers, the deterioration of the air, and the smoke caused by combustion are entirely overlooked, and the stoves are made without any provision for a chimney at all.

The white porcelain will not however conduct the heat so rapidly as a surface dark and rough.

In the construction of some of the open fire-places, an effort has been made to bring the body of fire forward into the room as much as possible, without diverting the passage of the smoke. This object appears to be very happily obtained in a grate exhibited by Messrs. Dean and Co. which is the exact reverse of many, even recently constructed—the back is quite flat, the bars projecting outwards, like a section of an ellipsis. The surface of the fire is thus increased and the whole is placed in front of the *four* reflecting cheeks. This appears manifestly superior to the *round back* and *flat fronted* fire-places in common use. The execution of these specimens is very elaborate, and for ordinary purposes would be too expensive, the plain black being about £9 10*s*., and if with ash-pan and ornamental side £25, but the principle might be recognized in a much cheaper form. It has been questioned above, whether the principle of introducing a fresh current of air to the grate and chimney, by communication with the external atmosphere has been fully appreciated, or its value rightly understood. Open fires have been objected to, for causing draughts, and closed stoves have been substituted ; air being introduced under them from without to ventilate the room, but the one great cause of these draughts as well as that of many smoky chimneys, and the frequent failure of attempts to carry off smoke from gas burners, by pipes, into the open air, has been altogether overlooked, viz. :—*mechanical exhaustion of the air in the apartment by excessive rarefaction in the chimney*.

For the purpose of drawing attention to the improvement adopted in Mr. Juckes' and also Mr. Pierce's stove, to which the jury have awarded a medal and "special approbation," it may not be unsuitable here to copy a paper which we brought to London on visiting the Exhibition, in order to submit to some manufacturers of stoves, supposing its suggestions to be wholly new.

For the well-being of fires generally, a constant draught or supply of air is necessary, not merely to support combustion, but also *to supply the partial vacuum at the bottom of the chimney*, caused by the ascent of the air, *it being*

highly rarefied by excessive heat. The air in the chimney being thus rarefied and heated, *to a degree far above that in the room*, the atmosphere is exhausted, and in fact pumped out of the apartment; thus the pressure of the external air is much increased, and this is perceived by a strong current entering at every hole and crevice—when a door is opened the draught is extremely inconvenient, and has the effect of immediately reducing the temperature, causing, of course, much waste of heat. To obviate this is the object of the present suggestion, viz., to introduce the air necessary to support combustion in the grate, and to supply the rarefaction in the chimney, not from the front of the fire-place, as is now universal, (thereby drawing out of the room the air which has just been warmed,) but from the atmosphere outside the apartment, by means of a pipe or flue laid beneath the floor, and under the hearth-stone, and opening behind the grate, a space being left here, carefully covered at the top, so as to prevent any direct communication between the pipe beneath the floor and the flue of the chimney. In order to introduce air into the chimney, to carry up the smoke, without making so large a demand upon the warmed air in the apartment, which now under the present arrangement of open fire-places, as soon as heated in the grate, rushes wastefully up the chimney, the front edge of the stove or fire-place opening, should be perforated or have a narrow space wholly or partially round it. From these perforations or spaces at the back of the face of the stove, and between the outer edge of the face and the surrounding slips, would flow a constant current of cold air; this would constantly direct itself towards the fire and chimney, and thus become the upward current. The reason for having the perforation round the *front edge* of the fire-place opening is this, that the smoke from the fire may be embraced by the draught of air and carried up the chimney; if they were in any other position this might not be accomplished, and the smoke might be sometimes driven into the room.

A double set of grate bars under the fire would be very useful, one set to be withdrawn, and replaced by the other at intervals, when the bottom of the fire gets choked with dust; thus allowing the small ashes to fall through without the wasteful application of the poker or the shovel, which pulverizes the coal. This double set might work upon a rod like a hinge, and pass one through the other, thus shifting the support of the fire without at all disturbing its position, but merely removing the dust from under it. In reference to the general question of close stoves and open fires, perhaps for Banks the Arnott stoves would really be the more suitable. The circulation of the blood in some gentlemen is so much more rapid than in others, that in an office, there is rarely perfect unanimity in managing the fire; one opening the windows, whilst another puts on coals. The coldness of the office on winter mornings is objectionable, to say nothing of the half-hourly attention required by an open fire. Whilst the Arnott stoves exhibited by Mr. Edwards, need replenishing but twice in 24 hours, and yet preserve a uniform temperature for months together.

Ventilation.

This subject is one of such vast importance, and yet one so generally and almost entirely disregarded, that considerable diffidence is felt in endeavouring to point out some of the facilities offered at the Great Exhibition for its accomplishment. Fresh air has been well described as the food as well as the breath of life; and to those who, owing to their inactive pursuits, breathe less than others, it is more important that the quality of the air should be most unexceptionable. Within the last two or three years only, has this subject been at all generally considered, although lately numbers of interesting books and pamphlets have been published upon it. Ventilation seems to divide itself into two parts, quite distinct in themselves, yet bearing one upon the

other, viz., the introduction of fresh air, and the carrying off of that which is exhausted, or foul. The latter has been long recognized, and in public buildings, to some extent provided for by openings in roofs, &c.; although in most Banking Establishments even this seems to have been too frequently overlooked. The former has been overlooked in the architecture of buildings generally, and neglected on account of the difficulty of accomplishing it without producing inconvenience. In summer, the evil is lessened, as windows and doors can then be opened with impunity, and the draught up the chimney is less. In winter, every precaution is taken to exclude the air by double windows and doors, and other appliances, and just in proportion to the success of these expedients, and the amount of fire kept up, is the rush of cold air, when a door or window is necessarily opened. Thus a change of rooms becomes essential, and when this cannot be obtained, or when at busy periods the Banking hours are much prolonged, great inconvenience is experienced from the vitiated air.

Perhaps at the present time there is not one room in a thousand provided with any means of continuous ventilation; indeed, with our present fire-places, this seems impossible; but with some other plan for supplying the chimney draught, it is presumed we might with great comfort employ Lockhead's perforated glass, manufactured by Swinburn & Co., for some of the window squares; or Naylor's new glass ventilator, very suitable for a window square, and almost frictionless. Moore's patent lever ventilator is admirably adapted to the same purpose.

Other kinds are designed to be fixed in the wall. The little ventilating window by Hart & Sons is deserving of notice; it has a self-acting safety bar to prevent its being opened or shut violently by the wind.

The ventilating bricks and windows manufactured by Warner & Sons are made ready to be built into a wall, and the frames being of iron, form with the glass most durable ventilators.

The specimen exhibited by Mr. J. H. Boobyer, of Harrison's registered Venetian ventilator, is extremely ornamental, and well suited to a papered or a coloured wall. The ventilating facilities afforded by the use of Ridgeway's hollow bricks must not be overlooked; the wall being thus formed of a complete series of air passages, a communication may readily be opened in any part with the external atmosphere; and for this purpose some little iron valves are used in Prince Albert's model cottages. Sherringham's ventilators, manufactured by Hayward, Brothers, would be applicable to this purpose; although it may be questioned whether the air will be found to take the precise direction desired.

But one other ventilator demands attention, viz., Dr. Arnott's Chimney-valve, which is really valuable. All attempts to ventilate rooms as at present constructed, by the occasional opening of a door or window, are insufficient, the warm air being lighter than the cold. Just as a bottle of oil inverted in a stream of water remains full, because the oil is lighter than the water, so the part of the room above the level of the chimney opening remains full of a poisonous gas, because it is lighter than the current of pure air which passes from the door to the fireplace; and it will be remembered that the portion of the air which is breathed by all but children is *that part above the fire-place.*

For the complete working of these ventilators, which are manufactured in great variety by Mr. Edwards, it is obvious that an increased supply of air is necessary; this it is proposed to bring from a valve in the door, which may be very well, when the exhaustion by the chimney is otherwise supplied; but at present some susceptible folks might well object to sit midway in such a draught, if there be any truth in the Chinese proverb—"Avoid a current of cold air from a narrow passage as you would the bite of a serpent." It should be borne in mind that every man requires four cubic feet of fresh air every

minute, or a quantity twice his own size, and that a common candle destroys as much, and gas burners much more; and we trust that such a happy combination of ventilating expedients may be adopted in banks generally, that fresh air may be obtained, and no one inconvenienced.

Health and Comfort of Bank Clerks.

It has been found to be very necessary to change the air of rooms as frequently as may be, and upon the same grounds it might be shown to be desirable to avoid all sources of unnecessary contamination; one very frequent source is the smell arising from drains, cesspools, sinks, &c. Some very efficient Effluvia Traps were exhibited. That made by Messrs. Bunnett is self-acting and self-cleansing, and with a fine grating, would act very well in situations where there is a considerable flow of water, and where the fall of the drain is sufficient to carry everything away. The Trap made by Messrs. Wilson and Woodfin is admirably adapted to cases where some amount of sand or sediment has to be removed, and where the fall of the drain is not sufficient to carry it away. For the same situations, and especially for sinks, and also for lavatories, Lowe's Patent Effluvia Trap Gratings, or Stench Trap Grids, are very useful; by these the usual syphon bend in the pipes from hand-basins, which is adapted as a cheap means of forming a trap, might well be dispensed with; thus avoiding the evil arising from sand being washed down the basin and lodging immoveably in this bend, whereby the pipe is obstructed.

Clark's Self-acting Valve Trap is also very good, and exceedingly simple in its construction, being specially adapted for sinks, &c.

This very comprehensive division of "Health and Comfort of Bank Clerks" seems to invite a suggestion as to whether it might not be desirable in all establishments where the persons employed are numerous (and why not in Banks?), to have fitted up, for occasional use, a warm bath apparatus. This may cause some to smile, but, upon a little consideration, it may appear by no means unreasonable. The desirability of such an indulgence occasionally will not be disputed. Then it will be remembered that a large proportion of bank clerks are in lodgings, that the expense of warm bath furniture is very considerable, and that, practically, very few houses are so supplied. Also, that the occasion when a warm bath is most useful, are those of slight cold, or some other little ailment, which requires attention, although a diligent and active clerk would not wish to be detained at home by such complaints. In such cases, perhaps, a cold would be increased by walking to a distance, and returning afterwards, and the expense of a cab added to that of the bath, would probably amount to four or five shillings, which, in many cases, would be prohibitory.

The bath would be but an adjunct to the usual lavatory, and the same room might suffice for both. The heating apparatus is so simple that very little contrivance is necessary for that. It may be connected with the warming arrangements for the Bank, or a little stove may be applied purposely, as in some of the baths referred to below.

The most delightful bath at the Exhibition is made by Mr. Finch, lined with porcelain tiles, the edges and corners of the bath being all turned and rounded, presenting a surface necessitating cleanliness.

Mr. Benham's copper bath is beautifully fitted up, with polished mahogany case, and combines facilities for hot, cold, shower, and vapour bath, price £23; but it may be questioned how far *polished mahogany* is suitable for the purpose.

Those made by Messrs. R. & W. Wilson are intended to save the cost of a wood frame, in which all baths with taps and levers for hot and cold supply, and waste-pipes, have hitherto been fitted, whilst at the same time an orna-

mental character is given them; indeed, the ten different specimens exhibited are well deserving of attention. They are made of the best "Charcoal Iron Plates" tinned by themselves. The most suitable for the purpose alluded to would be the "Grecian Bath, with Taps and Levers," square, white inside, and imitation Sienna marble outside.

Where no facility exists for obtaining hot water, the baths combining heating apparatus with their construction, may be employed. Messrs. Tyler & Son have given much attention to the construction of bath apparatus, and have published a little pamphlet of their various contrivances for heating. Their "Villa" warm bath, with small heating stove, is very compact; price £15 15*s.*, subject to 5 per cent. discount, and is completed for connection to the cold and waste-water pipes. Mr. R. Dale also exhibits an improved warm bath and heating apparatus, and Messrs. Warner & Sons the same.

The lavatories in the retiring rooms at the Exhibition have been so much appreciated that it is almost needless to call attention to them, except to point out the superiority of those having the back and horizontal slabs, to prevent the water from splashing the walls, &c. These are termed "Complete Fountain Hand-basins."

The hand-basins exhibited by Mr. Jennings have a very elegant appearance. The cocks are self-closing and exceedingly simple, and the waste-cock prevents the possibility of impure air rising. They work below, so that nothing is visible but the engraved "pulls." The water rises from the bottom of the basin like a fountain. In connection with these the glass pipes with patent joints, manufactured by Messrs. Swinburn, may be noticed, as very suitable for *rain water*, with which hand-basins should be supplied, and for the conveyance of which lead is unsuitable, the rain water, on account of its comparative purity, acting more powerfully on the lead than that from springs or rivers, and causing a poisonous quality in the water, which, if accidentally drank, might be attended with serious injury.

III.—There are worthy of notice one or two "*Discoveries in the Fine Arts, by which the interior of a Bank may be decorated.*" Few persons can have passed round the Coloured Glass Gallery without being struck with the imposing decorations, consisting of full-sized representations of Distinguished Individuals, by Mr. Norwood. The figures apparently in carved oak upon a crimson ground; the skirting and cornice being quite consistent with the rest; so that it is difficult to realize the fact of its being a perfectly plane surface. These figures are printed from blocks, at a very cheap rate. Mr. Norwood has eleven figures, viz :—Her Majesty the Queen, H.R.H. Prince Albert, Lord Nelson, Sir Robert Peel, Shakspeare, Milton, Lord Byron, Robert Burns, Sir Walter Scott, Ceres and Mercury—emblems of Agriculture and Commerce. These, although the execution is by no means rude or coarse, are printed at 3*s.* 6*d.* each; and it would seem that if arrangements could be made with Mr. Norwood for the representation, in this way, of some eminent and distinguished Bankers, such portraits might form a very suitable decoration for the Board Room; and thus, at a trifling cost, perpetuate the memory of those who ought not to be forgotten. Horn's Carved Oak Decorations, with knotted oak panels, are magnificent, and are an excellent imitation of polished oak of the finest grain. These can be had of any tint or colour; and are said to be extremely durable, —the varnished surface admitting of the wall being cleaned. Price, from 21*s.* to 30*s.* per piece.

As an interior decoration, the imitation marbles, painted upon wood and slate, might be used. The colouring surface upon the slate seems very firm; and the specimens exhibited by Mr. Hopkins, Mr. Smith, and Mr. T. Stirling, jun., are especially worthy of notice, on account of their beautiful resemblance and fineness of grain. A variety of circumstances have lately conspired to make a general and comprehensive knowledge of geography extremely neces-

sary, if not in the daily routine, at least in the occasional varieties of a Banking business; and *Maps*, used as decorations of a room, tend greatly to facilitate its acquisition.

Their size and their selection would, of course, be dictated by the situation, and by taste, and other circumstances. If intended to hang constantly, they should be well varnished; and Mr. Manning's varnish, made without the aid of heat, looks very well upon the Maps exhibited.

For embellishments generally, and for ornamenting ceilings, the Patent Earthenware, for which Mr. Hayes is agent, is recommended by its imperishable and cleanly character—requiring no renewal; and when fixed, not likely to get chipped and broken, like plaster. It admits of a very high degree of ornament, and in colour is perfectly unchangeable. The specimens, in sharpness of outline, appeared equal to any wood-carving or plaster impressions, if not to gutta percha.

This same material, in a plainer character, as also glass, seems well adapted for external use;—for lettering, for bell-pulls, and a variety of small matters, for which brass, &c., are at present used,—necessitating daily labour in polishing their surface.

Some of the *Letters* exhibited by Mr. Lee are quite elegant.

IV.—*Discoveries by which the Bank Furniture may be rendered more commodious.*

—This subject comprehends much of the minute; which, however, should not pass altogether unnoticed. The first object which presented itself was an Alarum Bedstead—suggesting to Bank officials the idea of *punctuality* in the morning, and the thought may not be altogether worthless for the winter of 1851.

DOOR BALANCES.

Mr. John McClure has invented a very great improvement upon our common door springs.

These are usually weakest when the door is shut, and stiffest when the door is opened wide; just the very reverse of what they should be. "The balances" are heaviest when the door is shut, and quite light when open. These are not in the market yet, having only recently been registered; but, from the models exhibited, they bid fair to supersede the springs. The A balance, with double connexion, for bank-doors, would be the best: they can be applied in various positions; the best place would be at the bottom hinge. The apparatus will be contained in a cast-iron box, about 9 inches square, and 5 inches deep, which is to be sunk into the floor; and the balance-weight requires a depth of from 9 to 11 inches to work in.

For ordinary light doors, Scott's *Silent Spring*, of vulcanized india-rubber, may be useful, on account of its cheapness, viz., 2*s*.

The passing from one room to another may be much facilitated by Windle and Blyth's *Registered Bevil Lift-latch*, which, by simply pulling the knob towards you on one side, or pushing it from you on the other, opens the door; the words "Pull," "Push," being engraved on little ivory plates on either side.

Self-acting Door Fastenings.—In a retired corner of Class 22 was placed the model of a door fitted with improved fastenings, made by Mr. Greenfield expressly for the Great Exhibition. These fastenings are modifications of those at present in use, with some slight additions. He has arrived rather scientifically at the conclusion, that his latch requires only one-eighth of the force usually necessary to close a door; and asserts, that these fastenings are not liable to get out of repair for many years, however rusty. The door is made to close without noise or vibration, and cannot be left ajar. When the fastenings are attached for the night, the shutting of the door locks them, and they then require two hands to operate at *different*

parts to open them—this being a security against the plan of cutting a hole through the door to shoot the bolts. It is to be regretted that these fastenings cannot possibly be *described* intelligibly without an illustration; but they will well repay the trouble of inspection. Mr. Greenfield offered to put the additional fittings to a lock and two bolts adapted to an ordinary size front door for 5*s*. The principal value seems to be additional security without additional trouble.

Floor Cloth.

For quietness and durability the "Kamptulicon Floor Cloth," manufactured by Walter & Gough, is peculiarly distinguished. The price, however, is very high.

Scraper and Foot Brush.

That which tends to promote cleanliness in an office where a number of gentlemen pass so large a portion of their lives, cannot be called trifling or useless. The "Improved Hall Foot Brush," registered by Thompson & Co., is of this class; and it may be well to notice here the importance of daily sprinkling the floors before sweeping, to avoid the needless accumulation of dust upon book-shelves, papers, books, &c., whence it is very unpleasantly transferred to the fingers of those who handle them. There is a prejudice against this method, because it stains the floor; but better stain the floor than spoil the books and soil one's hands. The "*Hand Pressure Table Bells*" should also be noticed, as being very suitable for a manager's room, manufactured by *Simcox, Pemberton, & Sons;* as may also the *German Thermometers*, to be had of Mr. Pritchard, Fleet-street, for which our continental neighbours are so famous.

Harcourt Quincey's "Patent Pedestal Coal Vase" is deserving of attention—saving the trouble of lifting a heavy coal scuttle, and the occasional inconvenience of an empty one. The "Folding Library Steps," made by Mr. Ell, would be found very serviceable, on account of their lightness, strength, and firm standing: well adapted for Bank rooms with high shelving. The sides are bowed, and the steps, which are dove-tailed into them, have risers tongued to their backs. These make a thin, light piece of wood, as strong as a thicker and heavier piece would be without them. Those at the Exhibition, French-polished, with lacquered hinges, price £3 10*s*.; same in American ash, £2 5*s*.; and in deal, £1 15*s*.; and if made higher, proportionately more.

Fire Annihilator.

Phillips' Patent Fire Annihilator, unless its power is greatly exaggerated, would form a very valuable adjunct to the furniture of Banks, where the destruction of books might be irreparable. Its great advantage seems to lie in immediate readiness for action, thereby affording the opportunity of checking a fire at its commencement.

Venetian Blind.

The New Venetian Blind, made by Hopkins and Son, is a great improvement on those in ordinary use. It is drawn up and lowered by one single cord. By drawing the cord a little "*from*" the window the blind drops to any position you may require, and becomes fixed by bringing the cord again into a *perpendicular* position; thus dispensing with the knots and hooks necessary hitherto.

For an ornamental table or slab, the imitation marble on glass, exhibited in Class 24, Nos. 37, 38, 39, and 40, appeared very suitable, and would, probably, be cheaper than real marble. The Sienna sample, No. 37, is an excellent imitation.

Bank Counter and Money Drawers.

There is in the new office of the National Bank of Scotland, Glasgow, a beautiful counter, of novel construction, having a sort of demarcation line between that portion appropriated to the customer, and that retained exclusively by the Bank Officials; and in connexion with the various specimens of glass exhibited in the Crystal Palace, the idea occurred, whether the friction, in telling coin upon wood, might not be diminished by substituting some mineral, or metallic surface; possibly of glass, which would admit of being easily cleaned. The quality of the "ring" produced would be of much importance, and this could only be discovered by experiment. But whether glass counters would do or not, there can be little doubt that *moulded glass*, or *glazed earthenware money boxes* for counter drawers, would answer well, and might be made much cheaper than the elliptical mahogany boxes, turned by an eccentric lathe.

Safety Collecting Boxes.

In the press of business, a place of safety, immediately accessible, is necessary, for bags of coin, paid in by customers, and set aside to be told at leisure. The Railway Collecting Boxes, made by Mr. Fisher, seem applicable to this purpose; the bags being put into the top, the shutting of the lid causes an open cylinder to revolve, and the bag falls to the bottom; it cannot then be seen or touched from the top opening, but can be removed by unlocking a door in the side. It will be observed that small "bags" of coin offer such peculiar facilities for appropriation, that they should not be unnecessarily exposed.

Fixture for Tin Boxes.

The daring robbery at the London and Westminster Bank, in June last, suggests the necessity of some ready method of securing the tin boxes in which specie, notes, bills, &c., may be kept, in the immediate vicinity of the counter. These boxes might have some slight projection behind, fitted to a corresponding recess in the back of the ledge or shelf, on which they stand. Several, being thus placed in a row, may be secured by a rising and falling iron bar in front, locked at one end.

Specie Travelling Trunk.

For the conveyance of specie from place to place, nothing, perhaps, unites ready portability and safety, so well as a small thick leather or gutta percha trunk. That made by Mr. Motte, out of *one piece*, would seem suitable for this purpose.

The American riveted portmanteaus, Canada Department, No. 196, in which no thread or sewing is employed, obtain great strength and durability, by the rivet heads projecting slightly from the surface; and for travelling with papers, &c., for the inspection of branches, or otherwise, the commodious bag with improved fittings, exhibited by Mr. Meller, would combine many conveniences. It is lined throughout with best Morocco leather, has metal knobs at bottom, to prevent wear, improved secret fastenings, four pockets, &c.—Price 5½ guineas. This is of course made in the very first style. They may be of *enamelled* leather, and lined after the same design, for two guineas.

Improvement in Paper.

The quantity of writing paper used in banking business is such, that the price at which it can be obtained is of considerable importance; and this, together with the quality, would greatly determine as to its merit. The specimen books of writing paper by Mr. Ralph, are deserving of attention, as

uniting cheapness with good quality. Some improvements have been exhibited in *peculiar kinds* of paper, by which additional security may be obtained against fraud, and for the transmission of cash, &c. There are also some inventions for preventing fraud, which will be pointed out under the head "*Engraving;*" but *Saunders' Watermark* claims attention here. Hitherto (with the striking exception of the Bank of England and a few others) bankers have sought to protect themselves from the imitation of their notes solely by expensive, elaborate, and extremely difficult engraving; and although the Bank of England protects HERSELF by certain secret and almost invisible marks, yet the public at large are constantly exposed to danger from taking bank notes which, for want of these secret marks, are afterwards detected to be forged. The advantage, therefore, of obtaining additional protection from a *watermark* in the paper, difficult or impossible of imitation (except by a very few manufacturers), is manifest. The expense of a *variety* of elaborate watermark designs for different bankers is not necessary, it not being so much a matter of taste as of bare utility; and ONE very complete and rare design might serve, in the manufacturer's hands, for *bankers' note paper* generally. This might then become a sort of guarantee with which the public would be acquainted, and would prevent the palming off of forged notes upon individuals who cannot at present judge, at a glance, of their genuineness. An additional security would be thus obtained at a very small additional expense, and one, in the benefits of which the public would participate; and notes, instead of going out after breakfast and coming back to dinner, might not go home till the morning. The process has been patented by Mr. Saunders, and its principal feature is, that designs in outline, *and in shade*, can be introduced, as watermarks into paper, they having hitherto been confined to words in Roman characters, or devices of the simplest kind, and in outline only.

Mr. Wilde's "Floreated Writing Paper" is also a very good specimen of water-mark, and although a different process to that of Mr. Saunders, for all purposes of mere *outline*, seems sufficient. It is remarkable that this unequal thickness, by which we suppose the water-mark is produced, should be imperceptible to the pen; practically, however, the surface of the paper cannot be *improved* by it for writing.

Check Paper.

For business purposes, although not quite so handsome as an elaborately engraven check, printed in vegetable colours, the paper made by Nissen and Parker from chemically prepared pulp, may answer well, especially as it immediately betrays the action of chemical agents. Thirty-two specimens of chemical application to this paper are exhibited, the effects of all being sufficiently obvious. The colour of these checks renders the tracing of a signature impossible, two checks laid one upon another being quite opaque. The process is cheaper also; and these checks, although not so ornamental, have an advantage over some heavily engraved, which, if written on with pale ink, are hardly legible. The difference, of almost 20 per cent., between the cost of checks from the plate and those printed from type, seems rather considerable, and if some uncommon type were used, perhaps the security would be as great as in using engraved checks. Moreover, cases of forgery by an imitation of the check are very rare, the facilities for obtaining genuine forms being far too great; and until customers will co-operate with their bankers to prevent fraud, by rendering their check-books less accessible, the inimitable character of the check is of comparatively small importance.

Metallic Paper.

The indelible character of style writing, upon Penny's improved Metallic

Paper, may recommend it for some purposes where the use of ink is inconvenient; and being nearly, if not quite, as permanent, it might be useful for exchange and clearing books. The paper exhibited was remarkably easy to write upon, the unpleasant friction of the style being entirely absent.

Brown Paper.

The glazed brown paper exhibited by Venables, Wilson, & Tyler, has some valuable properties. Its smoothness renders it very pleasant in use, and it is *firm, strong,* and *light:* this latter quality is of much importance; for the price of brown paper being very much regulated by its weight, the thinner the paper, compatible with the strength required, the more advantageous to the purchaser. This sample is fifty inches wide, and may be had in any length. It would be well suited to £5 silver parcels, and banking purposes in general.

Mr. Martin has invented a non-absorbent paper size, which he has patented. Instructions for its application can be obtained, at a moderate charge; and it might be very usefully employed for the brown paper used for Bankers' parcels, which are often endangered by exposure to wet. In the specimens exhibited of prepared and unprepared Blotting Paper, the difference was most remarkable;—the one instantly absorbing the water placed upon it, and the other throwing it off immediately.

Blotting Paper.

This being an article of large consumption in Banking business, is of much importance. Its present condition seems capable of much improvement, and would well repay a little attention. The blotting rollers are ineffectual, and the *blotting sheet* and hand seem the only alternative. Blotting paper seems generally to be good in proportion to its rottenness, and *vice versa.* It, therefore, is important to lessen the friction of the hand upon it, which progressively injures its absorbent quality, and causes it to tear, before half saturated.

It would afford much facility, if some glazed surface could be readily attached to a fold of blotting paper, of some twelve or sixteen thicknesses. These might be torn off as used.

Envelopes.

Notwithstanding the well-founded objections which have been raised against the use of Envelopes, they are generally adopted; and, on account of their convenience, are especially adapted for enclosures. Much time is also saved in using them, as unnecessary folding is avoided. The newly-invented *Paper Cloth* is well suited to parcels containing money or valuable documents.

Stone's Patent Bankers' Safety or Parchment Paper, manufactured by Mr. Saunders, may answer the same purpose, although the expense would be too great for ordinary use (£7 10s. the ream of 500 sheets). It is light, and very strong. Many persons must have observed the sheet at the Great Exhibition, sustaining a weight of 4¼ cwt., and attached to which was the following certificate:—"We hereby certify that a sheet of paper, of the same substance as the one exhibited, weighing less than 1¼ oz., sustained, without fracture, 5 cwt. and 24 lbs., being the utmost weight we could attach to the apparatus! (Signed) Wm. Williams and Sons, Scale Makers, Cannon Street, City. 19th April, 1851."

This is a very remarkable paper; and when wet, it will stretch considerably before breaking. The process might, with advantage, be applied to Bank Notes, and similar documents, which have to endure great wear.

The Envelope Machines of De la Rue and Co., and of Waterlow and Sons, have deservedly received much approbation, and to these and other

improvements is to be attributed the striking reduction in the price of envelopes within the last few years. The machines have been so well described already, that a repetition is unnecessary; by a very slight difference, however, in the dies of the two machines, one important variation in the form of the envelopes, is produced. In those by De la Rue and Co., the ends are first folded down, then the bottom and top flaps. In Waterlow's envelope, the bottom flap is first folded, then those at the ends, and then all are covered by the top flap. This is, obviously, the most useful envelope for business purposes, and especially for enclosures, as the *seal catches all four flaps;* whereas in all envelopes (and they are the greater number) made like De la Rue's, the seal very frequently, only connects the top and bottom folds, in which case, the gum being first softened, by steam or moisture, the ends may be drawn out, the remittance abstracted, and the envelope restored to its original appearance. This has been done in the specimen, although the cement seems very good.

The Polychrest Envelope, invented by Mr. Ralph, is well adapted for security. The bottom flap is cut long, and when folded, it reaches beyond the opposite side of the envelope; it is then turned back, and thus embraces the two ends, and lastly, the top fold covers all closely. This envelope, however, might be improved by cutting away the end flaps, a little at the bottom, so as to allow the seal to hold all four: the price for large letter size is, 15s. per 1000.

For the transmission of "*Crossed Checks*," the adhesive envelopes save much trouble in sealing, and there seems no reason why *post paper* might not be prepared in the same manner, for ordinary letters.

Great facilities have recently been gained by the use of envelopes *with printed directions*, for transmitting to other bankers, checks drawn upon their firms, in the benefit of which the post office has participated, in the facility with which such directions are read. It would be well if, in return, an opportunity were afforded of obtaining POSTAGE ENVELOPES at a fairly remunerating price.

Pens.

The *Quill* has become practically superseded by the steel pen, and unless some means can be devised of rendering ink and steel pens less antagonistic, the latter, in turn, must be displaced by something better adapted to the purpose. For many years the price of a gold pen was £1 1*s.*; recently, indeed, by the competition amongst retail dealers, a Mordan's pen may be got for 19*s.*; but this has been found too much, and a cheaper, although effectually anti-corrosive pen, has been extensively introduced, and now gold pens, although not so good as the £1 1*s.* pen, may be got for one-fourth of the money. Some of these are made by the first makers, and it is very desirable that in a thing of this kind, so much depending upon the care bestowed upon its manufacture, the maker's name should be permitted to appear. If the price is not first-class, no one would expect a guaranty of A 1 excellence. These pens, although little influenced by ink or friction, are not indestructible by the pressure of ledgers or the opening of desks, or falling pointedly upon the floor. Some means are requisite for their protection. These may consist either of some kind of *rest* in which to place the pen for a moment, when laid aside, or of a holder, such as that exhibited by Mr. Mallett, which draws in, like a pencil case, and which might be further improved by being slightly weighted at the end farthest from the pen, that in falling the nibs might not be first to come in contact with the ground. The *rest*, however, would be far preferable, as in some departments of book-keeping, the pen is perpetually laid down and taken up, and the only safe position for it, is between the lips, where the bitter varnish immediately reminds one of its impropriety. Indeed the unpolished cedar is better for pen-holders; its absorbent quality rendering it more pleasant to handle in warm weather.

Mr. Mallett's gold pens are made to screw into the holder, and are provided with a little fork underneath, to prevent the nibs from crossing. Prices, 6*s.* 6*d.* for the "platina pens," and 13*s.* for those with "ruby points." The little fork would somewhat interfere with the cleaning of the pen, for which gold offers such delightful facilities, and which should be further assisted *by both sides of the gold pens being polished.*

Mr. Myers exhibits some excellent gold pens, in *quill* holders, which, on account of their lightness, are very pleasant to use, and, excepting the *half-penny cedar holder*, perhaps the best. His steel pens are also very good. The splendid display of steel pens by Mr. Gillott was sufficiently striking. It seems a pity that such elaborate and excellent workmanship should be dipped into ink, only to be presently destroyed; for, notwithstanding such vaunted excellence of many pens, including those of *Albata* metal, they *do corrode*, and that in *any* ink, requiring to be continually scraped upon the "*coupon*" of a cheque book, or something else, to keep them in usable condition. The *nibs* being so soon spoiled, the use of *barrel pens*, which are much more expensive, seems undesirable. The idea of a bank providing all its clerks, once in two or three years, with a gold pen each, sounds rather extravagant, but it might not cost more in the end; and Mordan's pencils, at 6*s.* a dozen, with black-lead and soft cedar, are really cheaper, if used with care, than others at 2*s.*

Ink.

In consequence of the general use now of steel pens, ink requires to be made much thinner than formerly, and this very much lessens its durability

This will be very obvious on looking through the Court Rolls of any manor, or other ancient manuscripts, extending consecutively over a long series of years: and the evil is still increased in the case of *letters*, which, by the copying machine process, are robbed of half the ink put upon them.

This failure and deterioration of ink is a very serious evil, and, it is feared, must arise either from the absence of some important ingredient, dispensed with, perhaps, from a penny-wise economy, to which the manufacturer is goaded by the competition of his brethren, or else from the contact of *steel* pens in writing.

The truth appears to be, that whereas ink used to be composed of *gall nuts*, the object is now, amongst ink manufacturers, by chemical appliances, to produce a black fluid at the *least possible expense.*

If, upon consideration, it seems desirable that more attention should be paid to the inks which are used in banks, might it not be a good arrangement to purchase the best ink of the first maker (its carriage being very trifling), giving him notice, that a memorandum of its purchase would be made in the stationery account, together with a note, that all the books in the office would be written with it, thus furnishing a lasting record of its durability.

We have in our possession an ancient deed 506 years old, and yet the ink shows but slightly any deterioration in its colours; whereas some of the modern ink, sold by respectable manufacturers, and used but SIX years since, looks far less black and bright. From the great importance of the durability of ink, it is desirable that much attention and long experience should be brought to bear upon its manufacture; and to remunerate this care, the best ink should not be considered dear at the price of the best of wine.

Although desirable to have all inks as fluid as may be, yet for copying some degree of "body" is required; and this, for the sake of durability, should not consist mainly of glutinous material.

Mr. Todd has made it his business to manufacture ink scientifically; and the "*Perth Writing Inks*" are justly celebrated. Some writing in this ink, dated 1830, is shown. This, although in very fair condition, is not at all equal to those of olden time.

The copies produced from the Perth Copying Ink, point it out as desirable for this purpose, being very black and legible. The distinctive feature of the ink manufactured by Mr. Lovejoy, is its capability of resisting the influence of the ordinary *chemical re-agents*, by which other inks are obliterated. In the samples exhibited, the acids seem to have given *additional strength* and permanence to the writing, although in some cases the texture of the paper itself was destroyed. There were specimens tried by nitric, muriatic, and sulphuric acid, fourteen times diluted; by iodide of potass, one part to six of water; by citric acid, or salt of lemons, one part to four; and by liquor potassæ and oxalic acid, one part to three of water. This ink would be very valuable for writing cheques, bills of exchange, and letters of credit, to alter the *amount* of which there may be a temptation; and a double security would be obtained, by using the indestructible ink upon the sensitive tinted paper.

Ink Bottles.

The Ink Bottles, with a lip for conveniently pouring, made by Mr. Isaac, are a considerable improvement upon the old stone bottles, from which it is almost impossible to take ink cleanly.

Account Books.—Binding.

The same remark which was made in reference to writing-paper applies also to account books—that *consistent economy* should be studied as well as *superior quality;* and it is quite as true that some books are made at a needless expense, as that others are not nearly so substantial and strong as they should be. Some of the subsidiary banking books are practically done with when once filled, and that will be sometimes in six months or less. Others, such as current account ledgers, are *never* done with; and although, when filled, sometimes in one year, sometimes in five or six, they may not have to sustain much heavy wear and tear, they are frequently referred to. A third class, such as character and personal record books, may be in use for twenty years, or even longer periods; the renewal of these is attended with great and protracted labour. It is manifest, therefore, that the style of binding for these several kinds may widely differ. The first class should be bound as cheaply as may be, consistently with comfort, during the short period they are in use. The second class should be very strongly bound, considering not merely the time they are in *daily* use, but the indefinite period during which they may be required for reference; and for the third class, no binding can be too good, as far as materials and strength may be concerned;—the giving way of the binding sometimes rendering weeks of labour necessary, in transcribing, or the perpetual annoyance of a disjointed book. These remarks were suggested by the samples of Account Books exhibited by Messrs. Sibel and Mott; one set being made to order, for the City Bank, New York. The binding of these is super-excellent; and the ruling most elaborate and beautifully executed. The marginal lines, consisting of four colours, mitred at the corner, and the books are gilt-edged; the folio being put in the *middle!* of the page, instead of the corner.

The trade account books were bound in very handsome style indeed, and for such binding, paper, ruling, &c., the price may be considered very low. One set foolscap, 3*s*. per quire; one set demy, paged, 8*s*. per quire; and one set medium, paged, 9*s*. per quire.

The account books exhibited by Mr. Möller are deserving of especial notice, both on account of their character and price. Three books were exhibited, two of which were of practical utility, although rather "ultra" in their style of ornament. They opened remarkably well, and the indices, being only half width, were fixed with brass hinges to the middle of the cover, so as to be

more readily referred to. One of them, with extra ruling and printed head, 9 quires demy, very good paper, and strongly bound in "Jucht" skin imported from Russia, price £2 (see Hamburg Priced Catalogue, page 3.) The other, very handsomely bound in "Jucht" skin, with Russia bands, and of thicker paper, ruled, and with printed head and gilt edges! price £2 10*s*. These are quite equal to our very good English binding, and are exceedingly cheap. Mr. Möller further offers, if an order be given him to a large extent, say £200, to make similar books at a discount for cash of 20 to 25 per cent. from these prices. Until the duty is repealed, however, 10 per cent. must be added to the price.

It seems that if some plan could be invented for securing the backs of books, without the stiff half-cylinders of iron and leather at present used, a great convenience in writing would be obtained, from the facility in opening, and the much flatter surface they would present to write upon. Knight and Co. exhibited some account books which lie very flat when open; this is caused, apparently, by some degree of pliancy being imparted to the back.

There seems a sort of usage in favour of *vellum* for customers' pass books, otherwise the pliant backs of the books issued by the Savings Banks might be advantageously copied, if they could be written on at all.

An improvement is shown by Mr. Wadderspoon, which, although not new, is little practised, except by some of the first makers, viz., the insertion of linen bands along the sections of books, by which they are prevented from breaking away and the leaves from coming out; this material is useful, also, for protecting indices from wear.

The plan adopted in many banks, of transferring their current accounts into new ledgers every year, has many advantages, especially in the facility which a "dictionary" arrangement affords for posting; but one serious evil is the loss of *continuity in an account*, it being necessary, in case of reference, to move about a number of large and cumbrous volumes.

The thought occurred whether the vulcanised India rubber, recently introduced and exhibited by Mr. McIntosh, might not be rendered available in the binding of a book, by inserting *removeable smooth India rubber bands, in corresponding holes punched through the paper, close to the back*, in such a manner that, at stated intervals, the full sheets might be abstracted and replaced by new. This, or some other plan, might, perhaps, be successfully adopted, and, if so, it seems to be all that is required to obtain continuity of account for any length of time.

The binding should be so arranged as to form a convenient book, with stout boarded sides, as usual.

The book, thus composed of separate sheets, may be divided and headed as usual, leaving spaces between the accounts, according to their usual requirements, and between the letters in proportion to the existing accounts. The only difference would be, that the sheets should not be folioed, and therefore, no index would be used. The leaves of the individual accounts, however, might be numbered as they advanced.

When new accounts were opened, they would be put at the end of the division, as, at present, these misplacements only, being (in the absence of an index) noted at the beginning of the ledger. Any accounts which required moving during the year, would be treated in the same manner, and noted accordingly,

The absence of an index, in a ledger re-arranged in strict "dictionary" order once a year, would be attended with little inconvenience, it being found in practice that such indices are rarely referred to. At the end of the year, the full sheets may be abstracted and replaced by blank sheets, ready ruled, the order being made correct and the back adjusted.

Thus a book is ready for the coming year. The trouble of unnecessary

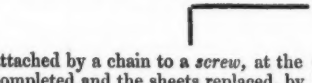
"heading" and indexing will be saved, and all the paper, also, which is unfilled, will be applicable again for use.

We are now just where we should have been with the old plan, as to continuity and facility of reference; at the end, however, of the second year the advantage would be felt, in incorporating the full leaves of the second year with those of the first, thus having the two years' accounts accessible in one book.

By this means, an account might be referred to for a long period, without the laborious necessity of handling a number of heavy books, at the same time causing unnecessary wear and tear of valuable records.

Various suggestions may occur to the mind, as to the most convenient and referable disposition of the removed sheets. After being arranged in exact "dictionary" order, they might be placed on their backs in a long frame or case, fitting them exactly.

The interior of the case (the grain of the wood running with its length,) should be very smooth, especially the bottom. The ends might be made to slide, so us to admit of the quantity of paper being, from time to time, increased. The names of the accounts might appear at the top, on vellum slips, inserted in their proper places. For reference a division might immediately be made, in any part, by means of an iron square, thus—



attached by a chain to a *screw*, at the end of the case. The reference being completed and the sheets replaced, by inserting a bar of wood, between the screw point and the sliding end, the whole may be again compressed, thereby restoring the screw to its original position.

The length of the box would vary according to the expected requirement, and the fire proof accommodation available, and when one case was full, another would be made, and the alphabet divided.

If this plan were adopted a saving would be effected in binding, which is, in heavy books, a considerable item; but the chief advantage would be *facility of reference*, and the value is well known of that information of a man's character and circumstances, which is, sometimes, alone to be obtained from a careful observation of the working of his account, for a consecutive and considerable period. The labour of putting the sheets away would be merely mechanical, although requiring care, and might be performed by secondary intelligence.

An objection, as to genuineness, on the production of a book in cases of legal evidence, might perhaps give way before general usage, should the practice be adopted; and it might be modified by care, as to uniformity of writing and of ink, in carrying forward from page to page.

Account Book Ruling.

The printing of headings and ruling of books, although attended with considerable expense, possesses such advantages, in ensuring accuracy and neatness, that it is well repaid. Our continental and transatlantic brethren, from the system by which they keep their accounts requiring more money columns than we do, have taken greater pains with the ruling of their books.

Considering the great importance of this department of bank books manufacture, it may be well to refer to two or three of the most striking specimens.

Messrs. Gaymard and Gerault exhibited some ponderous books, most beautifully ruled.

Messrs. Carl Kuhn and Sons also exhibited eight books, which for their beautiful ruling and printing are very deserving of notice. In binding, they are, however, very inferior to those from Hamburgh, wanting finish, and their

price, ranging from £1 1*s.* 6*d.* to £3 10*s.* 6*d.*, is high, owing to their elaborate ruling and dotted lines.

The specimen book of paper ruling by Messrs. J. and W. McAdams is also very excellent, and is distinguished by the clearness of the execution.

In concluding this part of the subject, attention should be called to the new ruling machine of M. Bauchet Verlinde, of Lisle. This machine is provided with an arrangement by which several sets of lines may be printed at the same time, of different colours, without the danger of their running into each other. It is a modification of what in this country would be called a "drawing ruling machine," as opposed to the "cylinder machine" in common use. By this plan, the usual hindrance, while one colour is drying, is saved, and all the lines running in one direction are at once completed.

Some sheets from an account book were exhibited, measuring 3 ft. 6 in. × 2 ft. 3 in., and containing 328 perpendicular lines of various lengths, in six different shades and colours, and all done at one drawing.

This is not the only superiority in this ruling, the lines are beautifully fine and perfectly unbroken, free from all irregularities. The difference in this respect, is most marked, and is one at which this man has aimed for years to attain, by a superior construction of his "pens,"—they are of a different form to those in use here; instead of the long point in our ruling pens, admitting of continual rubbing and filing, these pens seem as if not intended to be "mended" at all, but are made more in the shape of our steel pens, and with finer ink channels than the ordinary ruling pens, the consequence is, that the lines are such as are not seen in this country, and two or three Paper Rulers have expressed great surprise at the execution. Although such fine lines are not absolutely required for our wider money columns, yet as fine lines look better than coarse they are to be desired; and as writing looks better without any horizontal lines at all, the nearer the approach to a *mathematical* line the better, and these lines of M. Bauchet Verlinde's are almost entitled to that appellation.

Weighing Machines.

The sovereign being not merely the representative of value, but value itself, it is highly important that its intrinsic character should be preserved, and, as a check to the fraudulent practices of "sweating" and "drilling," it is very proper that gold coin should be at all times liable to the ordeal of weighing. The excitement resulting from the proclamation of June, 1842, has long since subsided. For the most part the public look upon a sovereign as worth 20*s.*, whether it be a "horseman" or a "Victoria," and few persons think of weighing gold, except when it is to be sent to the Bank of England, when the new gold is all gathered together, and if enough cannot be found, a few of the best of the old ones are weighed and put with them, the old being considered good enough for practical purposes. It is evident that this cannot go on long, and as some of the gold of the present reign is getting depreciated below the standard, the weighing must shortly be again resorted to. In these days of competition it is found that the seller, rather than displease his customer, is willing, generally, to risk the loss on gold, so that the trouble of weighing and cutting, falls entirely upon the banks. It is desirable, therefore, that this labour should be performed as readily as may be, and that when it is commanded by authority to cut all light gold, all gold discovered to be light should be cut. The practice of bankers weighing sovereigns, and when found to be light giving them back to their customers, is evidently injurious, as it involves the labour of weighing the same money over and over again, until some poor unfortunate brings these sovereigns to take up an acceptance, or on some other urgent necessity, and not having any sovereigns to change for the light ones,

is compelled to submit to the deduction. Would it not be for our mutual advantage if all the banks were to unite together to cut all light gold on presentation, in which a royal proclamation certainly warrants them, although it may not warrant their neglect to do so. It is very desirable, before any general weighing becomes necessary, that some improvements should be made upon the scales now in common use, the very best of which are liable to great objections arising from currents of air acting unequally upon the scales, constant irregularity caused by placing and displacing the sovereign to be weighed, by which the equipoise is every moment destroyed, adhesion of the scale-pans to the counter, difference in the judgment of the weighers, failing of the eyesight, difference in the weights of no small amount, considering the great degree of accuracy required.

These and many other objections are overcome, by the valuable and ingenious "automaton balance," or gold weighing machine, invented by William Cotton, Esq., which seems to have resulted from the discovery that the weighing by ordinary scales is extremely unsatisfactory, one clerk rejecting as light that which another accepted as current weight, as is proved by the fact, that on re-weighing three millions of sovereigns in the Bank of England at one time, which had been taken from the public as current weight, one-tenth of them were found to be deficient, and were melted.

This machine, however, beautiful as it is, and suitable as an adjunct to the counter of every considerable bank, is too expensive for any except those who have a very large amount of gold to weigh. They are capable of weighing ten thousand coins per day; the price of these machines was £210, it is now £200, and £10 goes to the Clerk's Widow's Fund, the remainder to Mr. David Napier, who has Mr. Cotton's consent to make these machines. Mr. Cotton very properly took out a patent to prevent others from bringing the machine into disrepute.

There are two or three improvements in the one shown at the Exhibition, and the price of such a one to weigh one size of coin, Mr. Napier says is two hundred guineas; and if required with parts and adjustments, to suit both sovereigns and half sovereigns, the additional expense would be about £30; and he thinks that, to retain accuracy in the weighing, one could not be made cheaper, or of a commoner material. This must be matter of considerable regret, for their value is established by the fact, that the second machine made has been in constant use for six or seven years, and Mr. Cotton believes it has never made a mistake of 1-50th part of a grain. They are in use not only at the Bank of England, in London, but at its branch in Liverpool, and at the Bank of Ireland in Dublin; and as the cashier affirms, they have weighed eighty millions of pieces without a single case of error having been discovered.

There is a slight inaccuracy in the account given of this machine in Hunt's "Handbook," vol. i., p. 377. It should be thus:—"If the piece is heavy, it remains stationary; if light, the beam is raised by the balance, the first hammer goes under it, and the other hammer then strikes it into the light box."

The best description is contained in the "Illustrated London News" for 22nd March, 1845. And it may be well to give here Mr. Cotton's opinion as to the care required in using it:—"So delicate a machine in course requires attention; dust or dirt on the beam will of course interfere with accurate weighing; unless some person will look carefully to the machine, it will soon be out of order. At the bank, the clerk has two sovereigns, one 1-50th of a grain lighter, and the other 1-50th of a grain heavier, which he passes through the machine, to test its accuracy every morning. In London, the machines are driven by steam, and in Dublin by a weight. If they are driven by hand, it should be a steady one."

The cost of this machine is certainly very high, and allowing for deterioration, repairs, and interest of money, would not cost less probably than £30 a year; many, therefore, must be content with modifications of the old scales, and as improvements are suggested by those exhibited, by which some of the objections to the common scales may be lessened or removed, it will be well to refer to them. The complete enclosing of the scales in a glass case, as is done with testing scales and assay balances, would, for the purposes of weighing gold, be quite impossible; but the evils arising from currents of air may be materially lessened by protecting the scales on five sides out of the six; this glazed frame might stand on the further side of the counter, and, running on slides or wheels, be drawn readily towards the cashier when required, and at night a little blind might be drawn down, to protect the scales from dust.

In the use of scales, the silk cords are very much in the way, and frequently by striking them, a rotatory motion is given to the scale, exceedingly incompatible with perfect accuracy. Perhaps the "balance" action might be preferable, made to work flush, or level with the counter, thus dispensing with the scale strings. The balances exhibited by Beranger and Co., the patent-right of which for England has been purchased by Messrs. Pooley and Son, on account of its delicacy, seems well adapted to this purpose. The patentees are making one, with some little modification, for Messrs. Cunliffe, Brookes, and Co., of Manchester. The working parts being concealed beneath the counter, would be protected from injury, and a little lid put over the scale pans at night would effectually keep them from dust, &c. Perhaps this principle, on account of the increased number of "bearings," is not so well adapted for very exact weighing, but considering that bank scales are scarcely ever in a condition to weigh very accurately, these might really be better suited for practical purposes.

An improvement which might be adapted to these balances, and which might rectify the errors arising from an occasional failure of sight, is suggested by the position of the index rod in the assay balances and testing scales which are exhibited. In all of these, the rod is brought from the scale beam downwards, and the index plate is fixed to the bottom of the pillar. In gold-weighing scales, the pointing rod is always put above the beam, so that at each action the eye has to quit the scale, and be raised to the top; this is very fatiguing, and no advantage at all seems to be gained by it; but the evil attending it is, that the eye is wearied, and the exact position of the scale is frequently missed in placing the coin upon it, thus causing vibration, and the equipoise is lost.

The importance of an index and pointing rod at the bottom of the pillar was suggested to Messrs. Chambers and Co., who intend shortly to bring out something of the kind for money scales.

Messrs. Nicholl and Co. exhibited a very superior balance constructed in this way, with indicating dial half way down, though not intended for weighing coin.

M. L. Reimann, of Berlin, exhibits some delicate scales, and one of them is provided with a screw, by which the scales are raised, thus ensuring greater steadiness than can be obtained by the application of the finger to the lever; but much gentleness of touch is acquired by practice, and those with a lever and a little wheel raising a sliding bar are perhaps the best scales in use.

Lelune and Co., of Berlin, also manufacture some beautifully delicate scales, with an index at the bottom.

Decimal Balances.

Much time and trouble would be saved by the use of decimal balances, of which Mr. Broemel is an excellent maker. He says that 4620 patent weighing machines have been made at his establishment in the course of eighteen years; one beautifully executed little decimal balance, which was stated to weigh

160 lbs (of course with a 10 lbs weight) is very deserving of attention. This would be just the thing for bankers' counters. Price, £5 5*s.*; and with it, the weighing of gold in bulk would be greatly expedited. For instance, in weighing 1,000 sovereigns, it is usual to count 100 first; then follow three shiftings from scale to scale, and four weighings; or if you begin with the 100 sovereigns weight, then five weighings and four shiftings are required; whereas with the decimal balance, the operation is performed by once raising the scale, with the 100 sovereign weight on the one side, and the gold on the other. This would do very well for full weight gold.

A letter balance of Messrs. De Grave and Co. deserves notice in this place; this method for letter weighing seems far preferable to the scales in ordinary use, the letters being of various shapes and sizes, are not conveniently placed within the cords of a scale—less still so upon the balance plates with a single suspending rod; the *balance* surface on the other hand admits of any thing being placed upon it of whatever shape, and being fixed, the parcel is not in danger of falling off.

In concluding this division of the subject, it may be desirable to call attention to the propriety of provincial banks employing provincial tradesmen in the manufacture of account books and the provision of stationery materials. In all districts of the country the trades and professions are supported in a measure by each other, and it is manifest that the prosperity of its own locality is of more importance than that of the metropolis.

The practice of sending to London for stationery and account books, which are the chief if not the only articles consumed by bankers, as such, of course arises from an expectation of being better served; and with the constant applications of London houses, of high respectability, for orders, presented through travellers, with the most polite assiduity, it is perhaps difficult to do otherwise. The consequence, if immediately beneficial, is ultimately injurious; it causes and perpetuates the evil which is named as a reason why London firms should be employed, viz.—that a good book cannot be made in the provinces; the reason of this is manifest, that a good binder cannot get a living elsewhere than in London. The country towns and the cities also become, as it were, importers, instead of exporters; the labour is employed elsewhere, attended by the profit, and is of course followed in a measure, by the capital, drawing all after it. The intelligent workman who has served his time, and saved his money, and who would, in ordinary cases, attempt to start in business for himself, with recent plans and new machinery is discouraged, and goes to one of the great London houses; the effect of this is that *tradesmen* suffer; they are obliged to send to London through their stationers for books. London has a monopoly, and prices are raised. Thus the stationery business of a county is affected by the arrangements of a single establishment. It will be remembered that a bank with ten or twelve branches, spending between £200 and £300 a year in stationery, would, with a few other principal establishments, be sufficient to support a first-rate man, and enable him to procure adequate machinery, and this is one principal difficulty, the expense of machinery, which country tradesmen cannot meet, unless they have all, or nearly all the work. As a simple illustration, one may generally tell a country made book, by observing that the edges are cut by the old horizontal *plough knife*, instead of Wilson's excellent perpendicular cutting machine, Class 6, No. 112. This, and many other valuable facilities in account book manufacture, including folioing machines, and powerful presses, are only to be obtained by tradesmen who have a considerable amount of business. The obvious course would appear to be to begin with those books which are least important, and order these in the country, also all articles of general stationery. It will be found that the paper may be just as good, and the materials generally; only there will be less "finish," about the books, and the "lettering" may be a little irregular—this however will improve. Then in reference to important

books, those requiring to sustain *long wear*, and some which it is desired should be especially good, they may be ordered at the provincial establishment, just giving a hint that they must be *Thomas's* make, this will be understood; the provincial tradesmen will share with them in the advantage, and there will be no difficulty in recognizing the book when it arrives, even without their label.

Letter Copying Machines.

At a period when all copying of letters had to be performed by hand, and by the process of transcription, some solicitors and commercial firms found it answer their purpose as a rule, not to copy their letters. Now, however, when the facilities of presses are so great, the least troublesome, and the safest way, is to copy every thing, this saves much time in consideration, and with proper arrangement of several books for distinct classes, letter copies may be kept in a very fairly accessible form. Since the adoption of the penny postage, the letter department in banks has of course been much increased, and the copying of letters assumes much of importance as a daily labour, and should be in every way facilitated, otherwise some of the advantage will be sacrificed in the delay.

The merits of the various machines exhibited may be noticed in three divisions.

1st.—Those the construction of which is calculated especially to save time.

2nd.—Some combinations by which more power is obtained.

3rdly.—The form most calculated for endurance.

Some of the presses unite all these, but are perhaps generally more distinguished by one particular.

1st. The press exhibited by Mr. Perry is almost the only one upon an entirely new principle, and combines very considerable power with great rapidity of execution. It is a combination apparently of the mechanical powers of the lever and the inclined plane. The pressure is obtained by means of a lever handle of moderate length, by suddenly bringing into an upright position two leaning bars—thus their length is, in the position which they occupy, practically increased, and this increased length, is at the expense in the thickness of the copy book, which is proportionably diminished. This possesses an advantage in the immediate application of the power, and is better than the ordinary lever presses, as the horizontal action of the handle, which is in the same manner as ordinary printing presses, is less fatiguing to the hand and arm.

In the ordinary lever presses, the surface between the handle and the perpendicular pressure bar, from extreme friction becomes much cut and worn, by which the friction is much increased and the handle becomes liable to *fly up*. It is to be feared that this press is carried back to Montreal, but it might answer the purpose to obtain some from thence, even against a 10 per cent. duty, if upon trial they should be found to answer. The price Mr. Perry asked for it was £5.

2nd.—The principle of the press exhibited by the Coalbrook Dale Iron Company, with double screw, is capable of exerting very considerable power, and may be useful perhaps in copying ten or twenty letters at a time, and if thought desirable to keep two presses, in case of one getting out of order, this might be tried, but the mechanical principle, "that what is gained in power is lost in time," is here most fully exemplified. The construction is not nearly so massive as seems to be required by such a principle, the price however is only 55*s*.

3rd.—The construction of some of the presses which attract attention under a third class, are those which seem specially adapted to wear long, in connection with other valuable qualities. "The newly Improved Copying Press,"

made by Barrett and Co., is very well and strongly made. Its principal advantage consists in the diminished friction at the point of pressure, where instead of the two rubbing surfaces, a wheel is introduced, this greatly facilitating the application of the power, and rendering the press more lasting; as in all machinery where there is undue pressure on very limited surfaces, there must be corresponding wear. It is found practically important that presses whether screw or lever should be *fixed*, their weight being insufficient when used rapidly, and of course this press, from the lever pivot being on one side, and the lever being longer, will be more likely to tilt up than those with the lever handle working in the middle; the prices of these machines without the "et ceteras" are moderate—those $9 \times 13\frac{1}{2}$ inches £3, those 11×18 inches £3 10s.

There is one important feature in Pierce's Imperial Copying Press, viz.,—that the pressure is not exerted upon the machinery of the press during the whole time the letter is in process of transfer, but merely for the moment of applying and removing the power, in order to place and displace the book; this is calculated to make it last much longer; the construction is extremely simple, the two plates are connected together by four stout rings of vulcanized India rubber, two at each end; the lever is employed in the same manner as in Messrs. Barrett & Co.'s press, to separate the plates; the copy book is then inserted, and when sufficiently pressed the power is again applied and the book removed. The price of this press is such as to recommend a trial of it. For press 11×9 inches 30s.

Screw Copying Presses.

One prominent defect marks the majority of the screw copying presses, and after being in use for a year or two they remind one strongly of an exploded steam boiler, or a young blind horse. They are too powerful for themselves, and their construction does not recognize the mighty principle which they contain, and thus in the attempt to make them ornamental, their efficiency is sacrificed; and although perfectly firm when new, the nuts, however tightly screwed, will move, and the pillars shake and totter, and this notwithstanding frequent attention and repair. As a striking exception to this, however, the presses of Messrs. Ransome and May are peculiarly distinguished for solidity and strength. The lower plate and the arch in which the screw works, are cast in one piece; this imparts a degree of firmness which cannot be obtained by screws and nuts. But even these do not seem to come up to the mark of what is required for actual every-day, and all-day-long service. The screw should be larger, to prevent its wearing out in twelve months, and the whole thing still more massive. If the handle ends were heavily weighted also, the screw, if well oiled, with one pull would work itself, and save much manual labour. Of course, these remarks are not intended to apply to ordinary presses, or for branch banks, where only a small number of letters may be copied daily; but where the number is considerable, some improvement is necessary. Perhaps it may be considered that the screw, under favourable circumstances, is the most useful application for letter copying, remembering the advantages it affords of regulation in pressure, according to the time available for procuring a copy; and of screw presses, those lastly mentioned are certainly the best. Prices:—folio, £3 5*s.*; large post, £2 7*s.* 6*d.*; and three other sizes.

The presses by Messrs. Shenstone and Mills are deserving of distinction, on account of their style of execution, especially the large folio press, price £4 4*s.*; and although elegance may not be of much importance in such a utilitarian commodity as a copying press, it is but right to point out the very beautiful workmanship of those by M. L. Poirier.

Paper Damper.

There seems to be at present some difficulty in the process of damping the

copying paper. The plan of sponging a plate of canvass-covered copper, and then pressing it first in the book to moisten the sheet, is attended with twofold trouble, and to avoid this, the plan has been adopted of sponging the paper itself with a flat-sided sponge, and then drying with a fold of linen. An ingenious instrument for avoiding this loss of time is to be obtained of Mr. M'Corquodale, whose patent damper consists of a hollow iron cylinder, about a foot long and an inch and a half in diameter, in which is a piece of cloth. In the cylinder there is an aperture the whole length the thickness of the cloth, which is by a screw at the end capable of being drawn out or in; it generally protrudes half an inch or so. Near the centre of the cylinder is a small air hole, protected by a key, which, on being raised, admits the air into the cylinder, and this imparts wet to the cloth, which is then drawn over the copying paper; on the key being closed, the wetting of the cloth immediately ceases, being air-tight. The damper costs 10*s*. 6*d*. Perhaps this is not the best plan which could be devised for the purpose, and it seems important that press manufacturers should turn their attention to the subject.

Patent Autographic Press.

Messrs. Waterlow and Sons have recently patented an invention under this name, which professes to afford great facilities to bankers for multiplying copies of letters, circulars, &c. It appears to differ from the old lithographic system, in the transfer being made to a highly polished metallic plate, instead of the lithographic stone hitherto used, and the press is in the form used for copying presses some years ago. The great practical difficulties with the old lithographic press were, first, in writing upon the transfer paper, requiring a special pen and ink and special care, it being somewhat of a greasy nature; then, secondly, considerable practice was found to be necessary in successfully transferring the subject to the stone; these objections to the old, may perhaps be quite removed in the new system adopted. It is, however, rather remarkable that in the testimonials published, they are entirely "opinions" of the "press," and newspapers are not, upon such matters generally, a very practical authority. As this press has now been before the public for fifteen months, it may be expected that some testimonials of its worth from those who have used it, will shortly appear.

The type-pageing of letter copying books by steam power by Messrs. Waterlow and Sons, will afford a great facility in indexing and in reference, the date being longer to write in the index than the folio; and for reference, the date of the letter not being close at the corner of the sheet, and many letters being copied in one day, the difficulty of finding any one is very considerable.

Manifold Writer.

On ordinary occasions, it is desirable that letters should not be copied by the same party who writes them, the process being purely mechanical; but for the Managers' private correspondence, "Wedgwood's Improved Manifold Writer" would be very useful; this requires little arrangement. The registered clip desk would add to the facility. It may not be generally known, that with care and practice, as many as six copies may be written at once by this means. The smooth glass style seems well adapted to this purpose.

Two or three other instruments used in carrying on the business of a bank, will now be pointed out, including

Stamping and Printing Presses, Seals, and Letter Clips.

The "crossing" of checks may be considered as an important operation, both as regards the prevention of fraudulent misappropriation and the facility it affords in the tracing of money transactions, which is frequently of use. The block upon which the printer's ink is sometimes insufficiently "distributed" being

formed of a composition of treacle and glue, generally used by the printers for their rollers, is liable to become hard, and unless kept scrupulously clean and frequently renewed, the ink adheres to it, and the impression from the stamp becomes thick and unsightly. A very general defect in the impression thus produced by the hand is, that there is too much ink and too little pressure; they become rubbed as soon as pressed, and the checks are subsequently very unpleasant to handle. As a general rule, it may be said, that for stamping checks the ordinary printer's ink is too thick for hand pressure. The printing apparatus registered by Harrild and Sons is well adapted to supersede the old plan of stamping by hand. It is self-inking, and the raising of the handle causes a composition roller to pass over the type; and then, when the handle is brought down, a leverage is obtained, causing a very effectual impression. The price of this, if complete, is £2 6*s*.

The press made by Schlesinger and Co. is superior to the last-named in some respects. The arc of the circle described by the hand in working it, is not much more than half the former, viz., about 45 degrees, by which much greater rapidity of action may be gained; the composition of the roller is peculiarly adapted to its purpose. The *printer's composition* is only suitable where a constant and active movement is going on, when, in fact, it is in full work, and where it can be well washed and renewed repeatedly. In this press, the inking roller is of a different construction; it is a hollow cylinder, bound with cloth on the outside; there are some fine communications between the inside and the outside, the roller being filled with fluid but substantial ink, it gradually works through to the outside, as the demand is made upon it, and the makers say that, for ordinary use, the roller will contain a six month's supply. By raising the handle, the roller is brought in contact with the die; by pushing down the handle, the impression is then transferred to the paper. The price of this machine is £3 3*s*., complete, with die not cut; and any sort of stamp can be made to order for it, cut in brass, at 3½*d*. per letter.

It has often been remarked how well all the foreign bills are stamped and marked; and the manner in which they make their stamps is very peculiar, the letters are not cut out of the solid metal, as ours are, but they are built up with fine thin plate brass or copper, with beautiful neatness and regularity; the outline of these letters is most acute, and those brought over from Vienna by Carl Dinkler are especially beautiful.

Consecutive Numerical Stamping Machines.

Now that the paging of books is so small an addition to their ordinary cost, the best way is to have them paged by the maker; the same may be said of notes, lodgment receipts, checks, letters of credit, &c. There are, however, some other purposes for which these machines may be found useful, amongst which the stamping of bills of exchange may be noticed; in some banks, where a great deal of discounting is done, it might be as well to have such a press as Harrild's or Schlesinger's, both of which are very compact and convenient, but the expense would be a heavy consideration, viz., £25. Harrild's combines the numbering machine and the above-mentioned stamping machine in one. For those banks which issue Bank of England notes with their own stamp upon them, the "Stamp Counter" apparatus, invented by M. C. de la Baume, may be useful; by this means, the number of notes which had been stamped would be checked; also, in despatching letters or circulars, the "date on which posted" might be stamped in the corner, just before placing in the post bag, and the number indicated by the dial, then compared with the number in the dispatch book, should correspond; this would be a check upon all the letters written being actually dispatched. The expense is very inconsiderable, without the die £2, and of course one or many dies might be adapted to it.

The folioing machine sent over from Boston by W. and J. M'Adams is deserving of notice, on account of its extreme singularity. It consists of a long chain of type numbers, each group apparently cast in one piece. This chain, which is perhaps twelve feet long, is made to revolve round rollers, a link, or number plate at a time, by a motion of the foot, and the whole chain having been inked, at each movement an impression is produced upon the book or paper placed upon the platform. Unless the type can be very cheaply made, it would seem that this must be an expensive construction, although some of the apparatus is dispensed with.

Embossing Presses.

It would be well if some way could be discovered by which the exceedingly neat and clean impression of these machines could be rendered permanent and irremoveable. At present, although exceedingly adapted in some respects for stamping cheques, the possibility of obliterating the impression by pressing and rubbing is a decided objection, as a "crossing" once made should not be liable to be erased in any way.

As at present used, they may perhaps be applicable for some purposes, and the suggestion having been made to some of the manufacturers that permanence in the impression was very desirable, it is quite possible that some improvement may be the result. Two or three makers may be mentioned, whose presses manifest considerable care and judgment in their construction. Mr. Muir's India-rubber spring press is very much adapted for rapid use, the weighted end of the handle merely requiring a single pull from the hand, this causes the pressure, and the spring immediately returns the screw to its former position. The whole of Mr. Muir's assortment seem constructed in a very scientific manner, which may also be said in reference to the embossing presses exhibited by Mr. Jarrett, Messrs. T. Wells, Ingram and Co., and Mr. Collett.

Seals.

The watch-ribbon and pendant seals are now but rarely seen, and the enormous wax impressions upon letters have almost disappeared. These have been replaced by smaller seals, and very recently in a majority of cases, by adhesive gum.

The latter, however, is not suitable perhaps for many occasions occurring in banking business, where there is either security for value to be ensured, or secrecy in reference to matters of a confidential character necessary; and there are means of opening adhesive envelopes, which make them sometimes unfitting enclosures. In many cases, however, the adhesive envelopes, or letter paper, which might be made as readily adhesive, may be used, and now that letters are carried for one penny, it is desirable that every facility should be afforded for their convenient transmission; and a thick seal, whether small or large, is a most inconvenient thing in a letter carrier's budget. Seals, too, if well mixed, take much time to make. Even whilst regarding it as a duty to diminish by all means the unnecessary thickness of letters, it is difficult to reconcile oneself all at once to the abandonment of the highly ornamental wax impression; and the temptation is irresistible to call attention to the rare specimens of skill exhibited in Mr. Martin's "Tornography." This is certainly a most beautiful manner of cutting seals, and the sharpness and depth of the impression are highly ornamental; but, as has been already said, the gratification at this invention must, however, be qualified by the fact, that the post office (to whom the public are greatly indebted) does not like thick seals; and as a matter of security, a thin, well pressed seal is always a greater protection than a thick one, for there are curious devices for removing seals, which are very difficult of execution where there is little depth of wax.

Letter Clips.

Much convenience may be found in the use of letter clips, not so much for confining letters as for holding checks during the entry of them in the day book, &c. The process may be considerably assisted thereby, as they may be turned over readily with the left hand, without fear of damaging the position of the pile; the most convenient plan will be to confine them at the upper left hand corner with one of Whitehouse and Sons' Registered Square Clips, with spring and wheel—price 1*s*.

For confining letters, "Circulars to Bankers," or pamphlets, the clip book exibited by De la Rue and Co. would be very suitable; or, better still, the screw leaf-holder by Charles Knight.

Improvements in Printing and Engraving.

ENGRAVING AND PRINTING CHEQUES.

The engraving and printing at present required for a bank note and for a check differ somewhat materially. As has been already remarked, the danger of fraud with regard to checks consists not so much in the imitation of the engraving or the paper, as in the alteration of the "amount;" this offence, although amounting to the crime of "forgery," being more lightly punished than the imitation of a signature. For the purpose of preventing this, therefore, the "vegetable colour" is well adapted for checks, whether embodied in the pulp from which the paper is made, producing the "tinted" check paper, or composing the ink with which the check is printed; therefore, for all purposes of safety, a plain check plate is practically as good as an elaborate one.

Some remarks upon the tinted paper will be found under heading "Paper for Checks."

The plan adopted by some banks of having their checks engraved, and then the name of the branch, &c., inserted in letter-press, is rather an expensive mode, requiring a double process. Additional prominence is frequently desirable in some parts of an engraved or printed document, and this is not always sufficiently obtained by a greater size of letter, but is more effectually produced by the use of a different colour; this has usually necessitated two processes, but in the samples of printing exhibited by Mr. Mackenzie, two distinct colours are impressed by one "form" at one time. This is done by using materials of two different heights.

An invention, corresponding somewhat in effect with the last named, though very superior in principle, has been made by Mr. Fisher, the inventor of the postage stamp colour, &c. The specimens exhibited are apparently printed in two colours, a neutral tint for the back ground, and black for the letters; and yet these two are produced at one printing, from one plate, at one press, and with one inking. This is certainly very singular. It is caused by a peculiar property in the colour used, which is extremely sensible to alteration by the quantity placed upon the paper. The engraving is on steel, and in the process a *back ground* is worked upon the plate extremely fine, the *letters* being engraved much more heavily; when finished, to all appearance it presents one smooth and even surface, and is inked at one operation. This invention possesses a three-fold advantage. 1st. The greater distinctness in the impression, having two colours without additional labour. 2nd. The vegetable colour being highly sensitive, prevents its being tampered with by acids, &c. 3rd. The secret composition of the colour would prevent the imitation of documents printed in it. The first and second may be considered as bearing upon the printing of *checks*, the third may be valuable in reference to *notes*, the object being to preclude their *imitation*, rather than prevent their being altered.

The usual custom of engraving notes in a manner extremely elaborate and minute, has some advantages, and the end in view, viz., to prevent *correct imitation*, is certainly obtained; for there are very few engravers capable of such execution, and those few are too fully employed by Messrs. Perkins and Co., and some of the leading tradesmen, to find any time for mischief; the ultimate object is, however, to prevent loss, and in this particular the minute engraving might not be equally successful. This minute engraving partakes rather of the character of the secret marks of the Bank of England notes, and to themselves alone these marks may be very useful, and are so, for it is very seldom that the loss of forgeries falls upon them.

It seems desirable that in bankers' notes, the minutely engraved groundwork sometimes seen, and consisting of the repetition, hundreds of times over, of the name of the bank, should not be entirely relied upon. Not one in one thousand of the public, perhaps, is aware of its existence; much of this work is hardly legible by the naked eye, and a person unaccustomed to scrutinize it at the counter, would not observe its absence. For the purpose, therefore, of the public's participation in the advantage the banker secures to himself, it might be well to accompany this minute work with a fully engraved note on both sides, in such a manner that persons of ordinary intelligence may judge whether they have a good note in their hands or a worthless strip; thus the value of our paper currency will be enhanced. Mr. Fisher's ink colour referred to above, will be very suitable for printing the notes, by this means additional prominence may be given to the amounts, &c., although its susceptibility as a vegetable tint would be most available for checks. Mr. Fisher has not, at present, introduced his colour for sale, being desirous to dispose of his invention.

The patent process exhibited by Messrs. Royston and Brown, will be very useful for minute engraving; the charge for 20,000 notes of the usual size, in strong bank note paper, including extras for water mark, numbering plate, &c., would be about £3 15s. per thousand, a larger number would be proportionably less.

Cutting Notes.

In connection with the engraving of Notes, a reference may be made to the very considerable expense attending their circulation; of course the advantages derived from a paper currency are mutually shared by bankers and by the public, and the interests of both are closely identified. It is to be regretted, therefore, that the apparent interest of one should in any way be sought at the expense of the other, as in the case of "*cutting notes*," the expense of prematurely renewing these, the engraving, paper, &c., being alone considered, is something; but when the trouble of cancelling, writing off, entering, and re-entering, examining of numbers, signing, counter-signing, dating and checking, is all considered, the labour is very great indeed. It is difficult to account for the great number of cut notes, now that commercial travellers so uniformly take drafts on London, unless it be that some bank, with a very large number of branches may have thought it right to adopt this plan for safety, bankers being, of course, obliged to send notes by post. There seems to be an idea upon the public mind, that if half a note comes safely, that is all they require. It may be well for them to understand that bankers do not pay single halves of notes *upon demand*, and that drafts on London, or even post office orders are a far preferable mode of remittance.

Notes in Duplicate.

In considering the subject of cutting notes, and the amount of trouble caused thereby to banks of issue, in some localities, the question has arisen,

what would be the amount of inconvenience attendant upon the issue of paper in duplicate, and what would be its advantage? The additional trouble of printing would be very small, as they need be no larger than at present, and in fact, printed at the same time, and cut afterwards, only requiring a completed margin; indeed, the present plates might merely be divided; the number is at present in duplicate, the date is frequently so, the signature and counter-signature are on different halves; in fact they seem as if intended to be divided. An objection is, however, immediately raised, that the labour of "telling" will be double too. This, however, may perhaps be overruled and be found to possess an advantage. No cashier thinks of issuing notes without telling them twice, and that at opposite corners, thinking it possible that an adhering note may be *twice* passed in the *same position*, and so it may, and occasionally *thrice*; if, however, the cashier has to pay £60 out of a £100 parcel of notes, he would usually be content with counting the £60 once, leaving them to be checked by the customer, and having counted eight remaining notes confidently replaces them in the drawer.

Supposing the pile of notes to be cut in two, and placed in two separate divisions in the cash drawer, a check being presented, and the notes counted once from each pile, a comparison of the number at the top of the piles would be an equal security with the transaction just described, with this additional advantage, that a note may be more easily passed twice in the *same*, than twice in *separate* parcels; the smallness of the notes would, of course, be inconvenient at first, but the plan which might be adopted of throwing them up separately with the thumb from the counter into the hand, by which the light is seen through them, in a measure, and by which a more extended contact with the paper is obtained, would be soon more speedily performed than the ordinary movement of holding the parcel with the left hand, and raising the corners with the right. The principal objection to this mode would be in the necessity it would involve for the comparison of notes received at the counter; this might not be very great, it being insisted on that the halves be presented in corresponding order, they might be set aside until a leisure moment, when, with each hand the separate halves might be turned over, and would then be fit for re-issue.

New Inventions in the construction of Locks and Safes.

The recent "lock controversy" has much increased the public interest in this subject, and some may perhaps expect that much will be said in reference thereto; but it is conceived that the abundant information already elicited by that interest from abler writers on this subject, renders any further disquisition thereupon unnecessary. It will be right, however, to allude to some of the locks which seem to occupy a prominent position, either from their superiority of construction, or novelty of design.

It is to be hoped that the mechanical spirit which has recently been awakened may be productive of still greater efforts in the improvement of this important piece of mechanism for protecting property. Lock picking will henceforth be more fully contemplated and provided against, in connection with lock making. For this we may thank our brethren in America. And, perhaps, it is fortunate that the picking of the Bramah lock has been accomplished at so opportune a moment by Mr. Hobbs, through whose courtesy some light has been thrown upon this mystery, in the lectures at the Banking Institute and before the Society of Arts.

The circumstances under which the lock was opened are well known. It was in the hands of the operator sixteen days, who made use of a fixed apparatus, screwed to the wood-work in which the lock was enclosed, together with the assistance of a reflector, a trunk of tools, and four or five other instruments made for the purpose, having been allowed six or seven weeks pre-

viously to take wax impressions of the key hole. The only legitimate way for Messrs. Bramah to obtain "satisfaction" from Mr. Hobbs, will be to pick *his* lock, U. S. A. No. 298, capable of 1,307,654,358,000 permutations. For a time, Mr. Hobbs' locks (apart from their expense) will stand pre-eminent; considering that the lock picked was fifty years old, should a second challenge upon similar terms, in reference to a modern lock, be declined by Mr. Hobbs, the case will then appear materially altered. Mr. Hobbs will, of course, be willing to offer similar facilities for opening his prize locks, and if Messrs. Bramah cannot accomplish this within sixteen days, it may be probable that they cannot accomplish it at all. There can be no doubt that the principle of Mr. Hobbs' locks is most excellent, and their execution is highly creditable to America, whose locks at present stand A 1. It will be remembered, however, that his best lock is £50, whilst Chubb's best lock, with 30 tumblers, is only £15.

Some good must certainly result from this "controversy," and probably, the credit of the Bramah principle and execution will in no way suffer, but eventually be advanced by those improvements which will be consequent upon the fact of a highly accomplished American artist having succeeded, after an arduous struggle, in opening them, the facilities afforded him being such as no thief could ever possess, even if he had the necessary ability.

The case, however, has been one of no ordinary picking, and we are much indebted to the perseverance and ability of Mr. Hobbs for the stimulus which, in all probability, will be given to lock manufacture in this country.

The Messrs. Bramah will, of course, improve their lock, and increase its present high reputation. Indeed, the position of the vanquished in *such* a struggle is far from discreditable.

Whilst all locks should be distinguished by security, strength, simplicity, and durability, a very large proportion are not intended, and need not to be constructed with a view to resist actual violence. This class is useful in the prevention of petty fraud and prying curiosity, and is applicable to all those cases where the certainty of detection would deter from robbery. For the security of valuable treasure, another character of lock should be employed; one calculated not only to resist the secret attempts at tampering, but also the desperate application of main force. The discovery by the metropolitan police, in the early part of 1845, of the burglar's instrument called the "jack in the box," may well shake our confidence in the apparent security of an iron strong room door. This instrument is so small in compass, that it might be easily carried about the person, and yet it has the power of lifting three tons weight; this is accomplished by the power of the screw, a turned iron being inserted in the key hole, a purchase is then gained upon the surface of the door, and either the lock or a portion of the door itself is torn away. Another plan occasionally adopted for opening safes is by the insertion into the key hole of a burglar's "brace;" this instrument is then forced round, the lock is by this means entirely destroyed, and then the bolt is readily shot back by some instrument, or sometimes by gunpowder. In some cases the "stub" which holds the bolt when it is thrown has been drilled out (its position being generally known); the bolt is thus at liberty. In other cases, burglars have avoided the door altogether, and obtained an entrance to the strong room by excavation; time, therefore, being granted, it is possible for men to get through almost anything, therefore in addition to locks, and bars, and bolts, and doors, it is essential that some one or more individuals should be day and night on the premises, wherein property to a large amount is kept. A secure room should be arranged, as near the safe as may be, wherein some one should sleep, with closed and fastened doors; fire arms and a little dog forming also part of its furniture. The room also should be so constructed, that the shutting of the door may not impede the ready perception of the slightest noise: a person in

such a case cannot be suddenly surprised by any one concealed within the building, but would have time for thought and preparation should he be disturbed. In addition to this arrangement, of course the strongest available defence in stone and iron should be used; but it is evident, for the protection of valuable property, they alone are insufficient. A useful addition to the safe door locks will be found in the sliding rod, occasionally adopted, which may be lowered from the room above through the safe door.

It may be well to notice in this place the peculiar suitability of the locks constructed by Mr. Marr, for all safe-doors; these are so constructed that they cannot be affected by the burglar's brace, and no one can open them, even if entrusted with the keys, without being instructed as to the secret of doing so. In Mr. Marr's arrangement, two locks are contained: one is placed behind the other; the hinder one serves to lock the bolt, it having been thrown by the handle. The outer lock, with a second key, then throws a strong hardened steel plate over the key-hole. This is far preferable to the ordinary brass escutcheon locks. The key-holes are placed at right angles with each other, thus making the introduction of picklocks impossible; and the outer key-hole of the door is at right angles with the outer lock. The keys are small, thus preventing the facility afforded by large key-holes for the use of force or cunning. Mr. Marr has very wisely abstained from advertising the principle of his lock, thinking, the less that is publicly known of it the better. In the construction of safe doors, Mr. Marr protects his locks from being drilled, by riveting a number of old files on the back of the door, thus gaining additional strength.

Mr. Hobbs has not had the opportunity afforded him of earning 200 guineas in sixteen days, by exercising his talents upon the locks of Chubb and Son. A lock, however, bearing their name has been picked by him in the presence of Mr. Porter, of the Board of Trade, Mr. Galloway, and other engineers. Messrs. Chubb affirm that this was an old lock of their father's, made under a former patent, without the modern improvements. One particular feature in the Chubb lock is the "detector." This consists of a simple arrangement which is brought into action when either of the "tumblers" is overlifted by a false key or picklock; when this is done, the true key will not unlock it until it has been released. This is done by "reversing the key." This detector system, which is adopted in many locks, may be useful for the discovery of fraud, but the *ready manner* of releasing the detector appears decidedly objectionable, as, on attempting to unlock the door by the proper key, the hindrance would probably be thought to be accidental, or arising from some misplacement, and in a moment, without reflection, the key would very probably be reversed, and the idea never occur that the detector had been thrown at all. This principle of reversing the ordinary key, in order to reinstate the detector, appears to be adopted in all the detector locks, and its extreme readiness appears a great objection.

The plan adopted in the Chubb locks at the Westminster Bridewell, where 1,100 locks are fixed, forming one series, is far superior, when, in case of any surreptitious attempt being made to open a lock, and the detector being thrown, the governor alone has the power, with his key, to replace the lock in its original state.

The detector arrangement, although possessing some advantages, is not without its evils, especially in locks where the detector is liable to be thrown by the tumbler being very *slightly overlifted*, as in this case, the pressure of the detector commencing almost immediately upon the tumbler being raised to its *proper elevation* for allowing the bolt to pass, may indicate to the lock-picker the character of instrument to be used; and in such locks, when by long use the tumbler springs are considerably weakened, the detector may be sometimes started by a sharp movement of the *proper* key. Where there exists the

remotest possibility of this occurring, the detector were far better absent, as the discovery of a detector being thrown is one of grave importance; this danger will be obviated by placing the detector some distance above the ordinary range of the tumblers, and although not quite so much skill may be required for its manufacture, yet the lock exhibited by Tann and Sons, which requires that the tumbler should be raised considerably beyond its proper height in order to throw the detector, may be, for that reason, the more really useful lock. It seems that detectors generally should neither be too readily thrown, nor too readily adjusted.

Guarded Tumbler Locks.

Messrs. Tann and Sons' locks are also provided with a "flange," or "guard," affixed at right angles to the edge of one or more of the "tumblers," thereby covering and entirely protecting the *edge of the "tumbler," above it* from the action of a "pick," and supposing all the "tumblers" but this one to be successfully raised, the bolt could not be moved.

It is very desirable that keys should be made as small as possible, consistently with the power required, that they may be conveniently carried in the pocket; and these locks are distinguished in this particular, the heavy bolts being first shot by a handle in the door.

Where the workmanship of locks is very fine, small keys can be made to shoot large bolts, as is beautifully exemplified in the lock exhibited by M. Grangoir, 2 inches thick, 10 inches long, and 6 inches deep, having a bolt $1\frac{3}{4}$ inch by $1\frac{1}{2}$ inch; this bolt is shot out two inches at two revolutions of the key, the key being only 1 inch long and $\frac{1}{3}$ inch thick, the handle ring $\frac{1}{2}$ inch diameter, and the stub of the key is only $\frac{1}{16}$ of an inch long; the whole being no longer than a small watch-key.

The lock exhibited by Messrs. Barrow and Son, with eleven tumblers, appears to correspond very materially in principle with those by Messrs. Chubb; the original patent being, however, for a lock with two tumblers moving in a racked bolt, these tumblers placed in different radii, and the key "bitted" accordingly. In both cases, the bolt is released by the raising of tumblers to a certain height. The detector is also regulated by the proper key, when it has been thrown.

The detectors of the locks exhibited by Mr. Gibbons are upon the same principle. Those made by Mr. Woolverson are distinguished by the delicate poising of the detector, by which it is rendered very susceptible.

An apparently superior method of "detection" is afforded in the lock constructed by Mr. Huffer. If a false key is inserted, it is immediately secured by a revolving wheel immediately behind the face of the lock, closing the key-hole entirely; the lock is provided with a second key-hole, having a series of "sliders," which are operated upon by the true key to release the false one.

In this lock, and also in that exhibited by Mr. Foster, there is a curious arrangement for "protection" as well as "detection," for, on attempting to tamper with them, *lancets* are shot from the sides of the key-hole, calculated to inflict considerable injury on the hand that would invade it.

Mr. Cotterill's locks are made very scientifically, being, in fact, fitted to the keys, which are all cut unlike one another; the key-cutting machine, Mr. Cotterill asserts, is constructed on a scale of a million to the inch, two keys only being cut whilst the machine is in one position. If the locks are made upon a scale equally exact, it would appear that the alteration in the size of the keys, from *variation of the weather* (!) must inconveniently affect their action, and that a key which, at a temperature of 40 degrees, would pass the lock, would, if raised to 70, throw the detector, which is "easily" released in the ordinary way. It is very desirable that keys should be varied in size although the value of the difference does not consist in its minuteness.

Mr. Cotterill has some very high testimonials from practical engineers, and machinists, in reference to the general construction of his locks; and from the indentation in the key being so varied in depth, and inclination, it would be extremely difficult to take an accurate impression.

The locks exhibited by Mr. Taylor, called "Improved Balance Detector Lever Locks," have no detector, although called by the name (and perhaps they are as well without). The tumblers are capable of variation, by which a great many "changes may be rung," amounting in one lock, it is said, to two million. The permutation principle, however, is not contained in the key.

Messrs. Gray and Son's may also be called a "permutating" lock, the construction admitting of infinite variations; in the specimen exhibited, to which the prize medal of the Royal Scottish Society of Arts was awarded in 1850, there are two bolts, each operated upon by a different set of "players;" the lock has four players for one bolt, and three for the other; and the distinct positions in which these players may be placed, by fine workmanship, is said to be 30 for each player; and the committee of the Society report that, allowing 30 distinct positions for each player, the number of different locks which might be constructed would be upwards of 22,540,000,000,000,000,000,000,000, thus affording security against false keys; these locks have at present only been made for bank safes, in which case the size is generally about 20 inches square. A 12-lever lock of this description would cost £7 10*s*.

Mr. Parke's beautiful padlock is a modification of the Bramah Slider Lock.

The Lever Bolt Safety Lock, exhibited by Windle and Blyth, is very peculiar; in addition to racked tumblers, it has a set of "lever bolt guards." The key is in two connected pieces; the "*nose end*" is provided with a "bit" on one side, and the handle part with a "bit" on the other side; the key, being placed in the key-hole, on being partly turned, assumes a different shape, and in this condition, by one bit, withdraws the "bolt guards," whilst the other shoots the bolt itself

A peculiar principle is also observable in the key of the lock manufactured by Bryden and Sons, which extends outwards after it is inserted in the key-hole, operating upon distant "players." An essential part of the key is also made removeable at pleasure, without which the key is useless.

The elaborate key-holes observed in some of the old locks are abandoned in those of modern date; and thus, the form of the key being more simple, its imitation is perhaps facilitated, and at the same time the lock is more readily examined by a reflector. A beautifully worked specimen of a key and key-hole was exhibited by Mr. Raab; and this may possibly suggest the idea of greater precaution against the imitation of keys—their *possession* for a time by a good workman being all that is required for a fac-simile to be produced. Such a key as that above referred to would, however, be exceedingly difficult to copy.

Where it is not required that doors should be locked from both sides, there is little advantage in having a key-hole *through*; this only causing the lock to get sooner dirty, by the constant current of air carrying dust into it. The tampering with a key with burglars' nippers, on the outside of a door, is prevented by the "safety key," exhibited by Mr. Hanley, the end or point of which is made to turn upon a pin, so that the "nippers" are useless.

Messrs. W. and J. Lea have invented some very useful little key-rests, consisting of a brass bracket, about an inch square, to which are attached two pliant pieces of steel, curved to receive the barrel of the key; these may be screwed up in a cabinet or closet, one under the other, and keys fixed and removed in a moment, thus admitting of more compact arrangement than the ordinary hooks: prices, according to size, 4*s*. 6*d*. to 9*s*. per dozen.

The splendid lock exhibited by Mr. Downes must not be overlooked; its mechanism is peculiarly beautiful, and for strength and security is very valuable;

it is to be placed upon the centre of the door, shooting three bolts from each side, these twelve bolts are secured by "rising bolts," worked by spiral springs, the "rising bolts" also secure four "fly bolts," which are confined by two elliptic springs; the key is in the form of a cross, and, by means of a number of "secret wards," forces the "fly bolts" from their fastenings, at the same time working an eccentric lever wheel, by which the twelve bolts are thrown. The key cannot be withdrawn until the lock is fastened. A lock on this principle might be also made for bank outside doors, shooting two long bolts, one up and one down. For a door three or four feet wide, and seven high, the price would be £18 or £20.

As a specimen of foreign manufacture, the lock exhibited by M. Bergstrom is worthy of attention, and although of rough exterior, on being opened, the interior work is found to be extremely good. It has eight tumblers, and is without detector: price £3.

Letter Locks.

The principle of these locks is very fully carried out on the Continent; most of their iron safes being fitted with them. In some of these, several alphabets are used, and by this means an almost endless "permutation" is obtained. These locks, when of a common description, are anything but safe. From reposing confidence in the *secret* of the lock, less care is naturally taken of the key, which being improperly obtained, the lock may not unfrequently be opened by attaching a weight to one side of the key, and severally turning round the rings until their correct position is discovered. The continental locks, however, are of most excellent construction, but it is quite possible that if, in haste, a person, after having locked the door, should forget to disconnect the letters of the secret word the "sesame" may be discovered.

This subject must not be concluded without an expression of astonishment and admiration at the exceedingly curious principle adopted in the locks of Mr. Hobbs' invention, manufactured by Day and Newell, and those of Mr. G. Shmedlier, of Vienna; here the "permutations" are not caused by any variations in the construction of the locks, but are produced by the action of the key. It is pretty well known, that the part of the key corresponding with that which, in other keys, is usually termed the bit, is in these keys formed of a number of flat rings of iron of various sizes,—the relative position of these rings can easily be altered, by removing the end of the key. In the process of locking, the key *forms the lock according to its own shape*, and then no other key will open it. The process by which this is accomplished, is not easily understood, much less easily described; a set of steel bars or plates is operated upon by the rings, which, in the passage of the key, are thrown into certain corresponding positions. The key may be varied almost infinitely, and a fac-simile lock will be produced.

Safes.

For the purpose of awakening attention to the importance of locks and *safes*, it may be suitable here to quote a passage from the *Bankers' Magazine* for April, 1845.

"In a country where a large class subsist by robbery, and where the means of effecting it securely is the constant study of skilful and ingenious thieves, the only means of baffling them, and of protecting the ordinary depositories of valuables from their felonious attacks, are to call in the aid of the greatest mechanical skill with respect to locks and fastenings, and to exercise unceasing care and vigilance. The bank robberies during late years show, that they have been planned with extraordinary sagacity, and have been effected with a

degree of skill, which proves that they are not undertaken by ordinary thieves. The large amount of money which the housebreakers are confident of obtaining, in the case of a successful burglary at a bank, induces them to act with a degree of skill and caution proportionate to the expected booty, and it is for this reason, that an unsuccessful attempt to rob a bank is seldom heard of; when "a set" is made at a bank, every information is, in the first place, sought for by the burglars, of the means of security adopted, and it has been ascertained, that many weeks and even months, have been occupied in this manner. Attempts are made to tamper with the servants, and an acquaintance is formed, if possible, with some of the female domestics. If, upon inquiry, it is found that the means of security are so numerous and inviolable as to give no chance of success, the matter is quietly dropped; but if any opportunity presents itself, no time is deemed too long to wait for the proper moment when the bank may be entered, the misnamed *safe*, or *strong room*, be opened, and a clean sweep made of all the convertible securities, and money it may contain."

The discoveries in chemistry have done much to promote security from fire; and the sides of safes, when constructed with highly non-conducting chemical preparations, are capable of withstanding a great amount of heat for considerable periods. Many persons have been surprized at the amazing thickness of the safe exhibited by Mr. Leadbeater. This thickness of nearly 12 inches is not generally necessary, and is intended for cases where, for convenience, it may be placed in the centre of a warehouse containing large quantities of inflammable matter; the sides are filled with non-conductors. A safe, similar to that exhibited, affording 6 cubic feet of clear space inside, viz.,—36 inches high, 24 inches wide, and 12 inches deep, would be £100. Mr. Leadbeater would, however, furnish a safe 3 inches thick at all parts for £75. He has supplied several banks with safes of this description, including London and County Bank, Royal British Bank, Messrs. Walter, Haverfordwest, Mr. Adams, Ware, &c.

No one should purchase a fire-proof safe without first reading the interesting pamphlet of fire-proof statistical detail, published by Messrs. Milner and Son, safe manufacturers, with full particulars of their patent principle, which is founded upon the use of chemical non-conductors, together with the use of water, which, in case of fire, by its gradual conversion into vapour, has a powerful influence in resisting heat. The cost of an outside size banker's safe, 6 feet square, and 8 feet deep, would be £200.

The patent fire-proof strong room of wrought-iron is particularly worthy of attention. This is exhibited by Mr. Marr, whose peculiar success in the construction of his locks has been already alluded to. This room, or safe, is 6 feet cube, and the sides, 4 inches thick, are made upon chemical principles of resistance.

Mr. Marr's workmanship is distinguished by stability and care in its execution, and his safes are used by some of the first bankers in the country. One of these was taken red-hot from the ruins of the Royal Exchange, in 1838, when the documents contained were found in a state of perfect preservation.

Foreign Safes.

The fire-proof safe of Mr. Kolesch from Stettin, is singular in appearance, no key-holes being visible, and the locks are so arranged that they cannot be opened, with the right key, by any one unacquainted with the secret. These *secrets* appear generally objectionable on the ground, that great reliance may be placed upon them, whilst all the while, perhaps, their existence is known and understood, although the party interested may not be aware of it. The price of this safe is £82 10s.

A beautiful iron safe is exhibited by Mr. Arnheim, from Berlin; this is especially adapted for a *money* safe, on account of its great strength. It is fitted up with iron drawers.

The spendidly burnished safe by Sommermeyer and Co. is very attractive and finely executed, as are also those of M. Verstaen and M. Paublan, from Paris. In these the fireproofing consists in the side being constructed of double iron with wood between; this, as a slow conductor, is very well, although not equal to the chemical combinations in English safes. The price of the two safes exhibited by M. Verstaen, are £80 and £140.

Wilder's Patent Salamander Safes seem to possess an equal notoriety in America with Milner's safes here. A very long list of testimonials is presented in their favour, and, on many occasions, they have been subjected to severe fiery tests. The price of the small specimen exhibited is £40.

Locks, and especially *safes*, being considered as amongst the most important articles in the Exhibition connected with banking, will, it is thought, justify their having been thus somewhat lengthily discussed; it must, however, be observed, that the "safes" of the Great Exhibition, *as a whole*, are distinguished rather by ornament and beautiful workmanship than by stability and practical utility for banking purposes; they are too small and they are too handsome, and, as a consequence, they are (proportioned to the accommodation afforded) far too costly.

Chemical compounds, which are prepared with great labour and expense, are extremely valuable for safes when these safes are liable to be exposed to fire; but when the property to be secured is so valuable as in banks, it may be desirable to incur some slight inconvenience to place it in a *position* which is in itself fireproof. It is therefore suggested, that bankers' safes, especially money safes, should always be *under ground*. If this cannot be arranged, then they should have fire-proof floors above and under them, and be so placed, that a passage or space should run round or about them, and that no *wooden* fittings or furniture occupy the intermediate space. The safe wall should, of course, be constructed of stone and iron. The next wall to it might be built of hollow bricks, or these hollow bricks filled with sand. A safe by this means must be entirely fire-proof, and if arranged at the time of building, might be but a slight expense. In case such a room was proposed to be built, as an addition to a bank, the floors being already made, a security from fire might be obtained by adopting Mr. Macbay's invention. This consists of "*fusible heads*" attached to the ends of pipes leading from a cistern of water, or a constantly charged main: the pipe is made to terminate in several of these sealed "*fusible heads*" which may be placed in any desired position. In case of fire, if the heat is raised to a certain height, these heads are fused, and the water immediately gains vent and deluges the surrounding parts. If for the mere security of *books*, the stone walls might be dispensed with, and brick used, as it seems hardly necessary that a book-safe should be made specially thief-proof. The strong room just described will be principally suitable for those books of a *valuable character* which have been filled. These *must be kept dry*, which is not easy in the case of papers confined for years under ground, except by constant fires; and although Mr. Clifford's valuable invention for restoring books and papers may do *much*, it is a better plan to *prevent* the necessity for its use. Although the "strong" room mentioned above may be deemed a sufficient security for even valuable books *when filled*, and on account of its superior dryness be preferred, it seems that books *in use* should be kept beyond the possibility of fire, as much as bills and bank notes. These, therefore, should go below, and for this purpose, it is suggested that a cellar room or well, lined and arched with Ridgway's *hollow* bricks, should be constructed, and for convenience, as nearly in the centre of the bank as possible, having a square opening at the top, some distance underneath the floor.

That a cubical frame, or cage, of flat bar iron should be formed to correspond in size with the opening, a powerful tackle and windlass being fixed above it. This "cage" might then, by means of "sliding bars," be raised and lowered through the opening into the room below. One side of this cage should be open, into which, when drawn up level with the floor, a barrow might be wheeled, containing the books in daily constant use. The three other sides might constitute a series of book-shelves, externally accessible for those books most frequently referred to by clerks in its immediate vicinity. If the hollow bricks were not found sufficient to keep the room from damp, a stream of hot air from a flue might be occasionally driven through it.

Alarms.

Some delicate machinery has been constructed for this purpose, and alarms of various kinds are frequently attached to doors and windows, bank-safes, and even *locks*. It has, however, been found, that the trouble of nightly adjusting all these instruments, together with the attention necessary to insure their action, and the annoyance caused sometimes by *false* alarms, form a serious objection to their use, and, it is thought (as suggested under another head), that if a safe is sufficiently secured, no successful effort could be made to enter it without the person sleeping near it being aroused, especially if aided by a little dog.

One remark yet remains to be made in reference to many of the articles which have been mentioned, viz., that they must be attended to—that care must be bestowed upon them, or they had better not be introduced. How frequently is it the case that scientific mechanism is rendered wholly useless by ignorance or mismanagement; indeed, the most useful and the best adapted instruments usually require the most constant care.

It is suggested that some one of intelligence in an establishment should be empowered to do the needful in small matters of renewal and repair, and that every porter in a bank or office should not only possess an *oil bottle* but *know how to use it*.

We have thus grouped together such of the productions of human skill, exhibited in the Crystal Palace, as appear peculiarly subservient to the purposes for which this essay was originated.

While diligently engaged in this selection, and testing, in some degree the relative merits of various designs, we have often been astonished at the wonderful works of man, and irresistibly led to the conviction, that "his God doth instruct him to discretion," and while devoutly echoing the very appropriate motto of the general catalogue,—"The earth is the Lord's, and the fulness thereof," to acknowledge "This also cometh from the Lord of Hosts, who is wonderful in council and excellent in working."